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VOL. I.

STEEL T RAILS

Sections of Steel and Iron Rails,

MANUFACTURED BY

CAMBRIA IRON COMPANY,

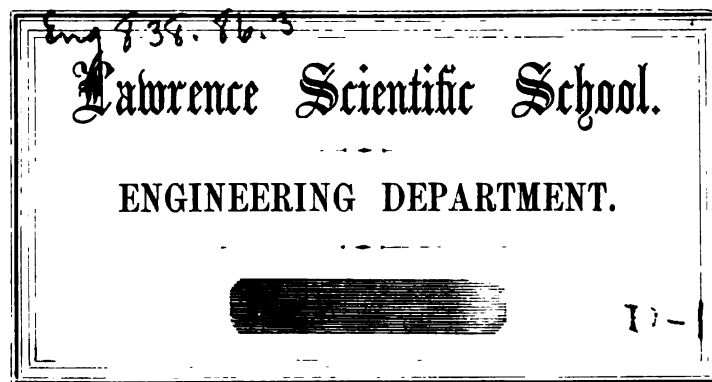
JOHNSTOWN, PENNSYLVANIA.

OFFICE,

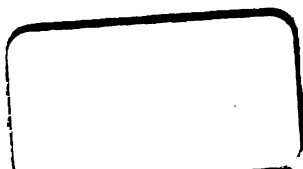
No. 218 South Fourth Street,

PHILADELPHIA, PA.

1886.



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IRON AND STEEL WORKS OF THE CAMBRIA IRON COMPANY.

(INCORPORATED 1852.)



(ONE MILE.)

FURNACES Nos. 1, 2, 3 & 4.	COKE OVENS.	WIRE ROD MILL.	PUDDLE MILL.	STEEL RAIL ROLLING MILL.	FURNACE No. 5.	FURNACE No. 6.	GENERAL OFFICES.
STABLES.	FOUNDRY.	BLACKSMITH SHOPS.	IRON RAIL ROLLING MILL.	BLOOMING MILL.	PERNOT OPEN HEARTH FURNACES.		
CAR SHOP.	PATTERN SHOP.	BOLT & NUT WORKS.	BESSEMER CONVERTING WORKS.	SPLICE BAR MILL.			
TIME OFFICES.							

ANNUAL CAPACITY OF WORKS.

IN TONS OF 2240 LBS.

Pig Metal, . . . 250,000 Tons.	Steel Rails, - - 150,000 Tons.
Coke, 800,000 Tons.	Rail Fastenings, 5,000 Tons.
Steel Ingots, - 200,000 Tons.	Iron and Steel in other shapes, 50,000 Tons.

Total Number of
Employees,
8,000.

ANNUAL CAPACITY OF MINES.

IN TONS OF 2240 LBS.

Iron Ore,	- 500,000 Tons.
Coal, -	- 775,000 Tons.
Limestone, -	- 150,000 Tons.
Total, -	- 1,425,000 Tons.

Eng, 834.86.3

MASSACHUSETTS
SCHOOL OF ENGINEERING

JUN 20 1917
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CAMBRIA IRON COMPANY,

—MANUFACTURERS OF—

STEEL RAILS AND FASTENINGS,

General Office Address: No. 218 SOUTH FOURTH STREET, Philadelphia.

Works at JOHNSTOWN, CAMBRIA CO., PENNA.

The sections presented in this volume are only those of Steel T Rails; Street Rail sections being in a separate volume, and Iron Rail sections (being obsolete) are omitted. Rails of the Standard Sections are frequently in stock and can be furnished immediately, while most of the sections can be promptly rolled. Rolls will be prepared for approved new sections. The weights stated can generally be varied 2 to 4 pounds per yard without changing height or materially altering other dimensions.

This Company strictly inspect all their manufactures before shipment, and any rails not up to the standard of first quality are rejected and classed as "Seconds." The wear of rails so classed is not generally impaired, and they are sold at reduced price for sidings and roads where low speeds are used. For these or car load lots from stock apply direct to the works.

The long experience of the present management of the Company, (since 1855), and the enviable reputation established for "**Cambria Rails**," are deemed a sufficient guarantee that purchasers can at all times depend upon receiving rails unsurpassed for strength and wear by any others of American or Foreign make.

STANDARD SECTIONS

IN MOST GENERAL USE.

16 lbs. . . .	No. 121.
20 " . . . "	122.
25 " . . . "	104.
30 " . . . "	71.
35 " . . . "	81.
40 " . . . "	90.
50 " . . . "	100.
*56 " . . . "	73.
*60 " . . . "	56.
*67 " . . . "	55.
*70 " . . . "	125.
*75 " . . . "	130.

*The same splice bar will fit all of these sections.

50 lbs. No. 60, 50 lbs. No. 85, 56 lbs. No. 63, 58 lbs. No. 54, 60 lbs. No. 99, 60 lbs. No. 112, 60 lbs. No. 118, 60 lbs. No. 129 and 66 lbs. No. 88 are also approved sections.

F

INDEX TO FIND SECTION NUMBERS.

Steel T Rail Sections, Vol. 1.
 Iron T Rail Sections, Vol. 2. (*Obsolete.*)
 Street Rail Sections, Vol. 3.
 Rail Fastenings, Vol. 4.

EACH VOL. ARRANGED ACCORDING TO WEIGHT OF RAILS.

No.	Weight.	No.	Weight.	No.	Weight.
1 Iron	88 lbs.	45 Iron	56 lbs.	88 Steel	66 lbs.
2 Iron	67 lbs.	46 Iron	40 lbs.	89 Steel	46 lbs. Street
3 Iron	64 lbs.	47 Steel	62 $\frac{1}{10}$ lbs.	90 Steel	40 lbs.
4 Iron	62 lbs.	48 Iron	30 lbs.	91 Iron	40 lbs.
5 Iron	61 lbs.	49 Steel	60 lbs.	92 Iron	16 lbs.
6 Iron	61 lbs.	50 Steel	62 lbs.	98 Steel	42 lbs. Street
7 Iron	60 lbs.	51 Steel	61 lbs.	94 Steel	56 lbs.
8 Iron	60 lbs.	52 Steel	56 lbs.	95 Steel	60 lbs.
9 Iron	60 lbs.	53 Iron	56 lbs.	96 Iron	24 lbs.
10 Iron	58 lbs.	54 Steel	58 lbs.	97 Steel	44 lbs. Street
11 Iron	57 lbs.	55 Steel	67 lbs.	98 Steel	40 lbs. Street
12 Iron	56 lbs.	56 Steel	60 lbs.	99 Steel	60 lbs.
13 Iron	56 lbs.	57 Iron	60 lbs.	100 Steel	50 lbs.
14 Iron	52 lbs.	58 Steel	80 lbs.	101 Steel	45 lbs. Street
15 Iron	50 lbs.	59 Steel	60 lbs.	102 Steel	50 lbs. Street
16 Iron	50 lbs.	60 Steel	50 lbs.	103 Steel	47 lbs. Street
17 Iron	50 lbs.	61 Iron	45 lbs.	104 Steel	25 lbs.
18 Iron	45 lbs.	62 Iron	54 lbs.	105 Steel	43 lbs. Street
19 Iron	43 lbs.	63 Steel	56 lbs.	106 Steel	27 lbs. Street
20 Iron	43 lbs.	64 Iron	29 lbs.	107 Steel	56 lbs.
21 Iron	43 lbs. Street	65 Steel	62 $\frac{1}{10}$ lbs.	108 Steel	52 lbs. Street
22 Iron	41 lbs. Street	66 Steel	60 lbs.	109 Steel	52 lbs.
23 Iron	35 lbs.	67 Iron	35 lbs.	110 Steel	60 lbs. Street
24 Iron	24 lbs.	68 Steel	58 lbs.	111 Steel	38 lbs. Street
25 Iron	16 lbs.	69 Steel	30 lbs.	112 Steel	60 lbs.
26 Iron	61 lbs.	70 Steel	52 $\frac{1}{10}$ lbs.	113 Steel	60 lbs.
27 Iron	56 lbs.	71 Steel	80 lbs.	114 Steel	30 & 35 lbs. Street
28 Iron	65 lbs.	72 Steel	36 $\frac{1}{10}$ lbs. Street	115 Steel	60 lbs. Street
29 Steel	67 lbs.	73 Steel	56 lbs.	116 Steel	44 lbs. Street
30 Iron	61 lbs.	74 Steel	60 lbs.	117 Steel	76 $\frac{1}{10}$ lbs. Street
31 Iron	57 lbs.	75 Iron	56 lbs.	118 Steel	52 lbs. Street
32 Ir. or St.	60 lbs.	76 Steel	60 lbs.	119 Steel	45 lbs. Street
33 Iron	64 lbs.	77 Steel	60 lbs.	120 Steel	58 $\frac{1}{10}$ lbs. Street
34 Iron	53 lbs.	78 Iron	52 lbs.	121 Steel	20 lbs.
35 Iron	56 lbs.	79 Iron	50 lbs.	122 Steel	16 lbs.
36 Iron	60 lbs.	80 Iron	48 lbs.	123 Steel	60 lbs. Street
37 Iron	48 lbs.	81 Steel	35 lbs.	124 Steel	68 lbs. Street
38 Steel	60 lbs.	82 Steel	56 lbs.	125 Steel	70 lbs.
39 Iron	50 lbs.	83 Steel	43 lbs. Street	126 Steel	52 lbs. Street
40 Iron	60 lbs.	84 Iron	56 lbs.	127 Steel	58 lbs. Street
41 Steel	60 lbs.	85 Steel	50 lbs.	128 Steel	52 lbs. Street
42 Steel	58 $\frac{1}{10}$ lbs.	86 Iron	47 lbs.	129 Steel	60 lbs.
43 Iron	60 lbs.	87 Steel	59 lbs.	130 Steel	75 lbs.
44 Iron	56 lbs.				



CAMBRIA IRON CO., JOHNSTOWN, PA., OFFICE, 218 SOUTH FOURTH STREET, PHILADELPHIA.

USEFUL INFORMATION ABOUT MATERIALS FOR TRACK CONSTRUCTION.

P RAILS REQUIRED PER MILE, OF THE OWING WEIGHTS PER YARD.			RAILROAD SPIKES.				NUMBER OF JOINT FASTENINGS REQUIRED TO THE TON OF RAILS.							
Per mile.			Size, measured under head.	Average No. per keg of 150 lbs.	Ties two feet between centres, four spikes per tie, makes per mile.		Rail used, weight per yard.	Weight of Rail per yd.	24 Foot Rail.	25 Foot Rail.	26 Foot Rail.	27 Foot Rail.	28 Foot Rail.	30 Foot Rail.
25 gro. tons, 320 lbs.			Inches.		Pounds.	Kegs.		Pound.	Joints.	Joints.	Joints.	Joints.	Joints.	Joints.
31	“	960	5½ x ⅞	280	5670 =	38	45 to 70	30	9.33	8.95	8.61	8.29	8.00	7.46
39	“	640	5 x ⅞	300	5170 =	35	40 to 56	35	8.00	7.67	7.38	7.10	6.85	6.40
44	“	000	5 x ¾	340	4660 =	31	35 to 40	40	7.00	6.71	6.45	6.22	5.99	5.60
47	“	320	4½ x ½	400	3960 =	27	30 to 35	45	6.22	5.96	5.74	5.52	5.33	4.97
55	“	000	4 x ½	450	3520 =	24	28 to 35	50	5.60	5.37	5.16	4.97	4.79	4.48
62	“	1920	4½ x ⅞	510	3110 =	21	25 to 30	56	5.00	4.79	4.61	4.44	4.28	4.00
70	“	1600	4 x ⅞	540	2940 =	20		60	4.66	4.47	4.30	4.14	4.00	3.73
78	“	1280	3½ x ⅞	675	2350 =	16	20 to 25	62	4.51	4.33	4.16	4.01	3.86	3.61
81	“	1600	4 x ¾	760	2090 =	14		64	4.37	4.19	4.03	3.88	3.74	3.50
88	“	000	3½ x ¾	890	1780 =	12	16 to 20	67	4.17	4.00	3.85	3.71	3.58	3.34
89	“	1280	3 x ¾	930	1710 =	11½								
94	“	640						FISH PLATES AND BOLTS FOR ONE MILE OF TRACK.						
97	“	960	CROSS-TIES, PER MILE.					Length of Rail. Feet.	Number of Fish Plates required.		Number of Bolts.		Number of Rails or Complete Joints.	
100	“	1280	Centre to Centre.	Ties.				24	880		1760		440	
102	“	320	18 inches,	.	.	.	3520	25	884		1688		422	
105	“	640	21 “	.	.	.	3017	26	812		1624		406	
106	“	1920	24 “	.	.	.	2640	27	782		1564		391	
110	“	000	27 “	.	.	.	2348	28	754		1508		377	
			30 “	.	.	.	2113	30	704		1408		352	

INDEX FOR "T" RAILS,—RAILROADS OR CONTRACTORS.

S.=Steel. † lbs.
I.=Iron. † No.

Steel T Rails, Vol. I.; Iron T Rails, Vol. II.; Steel Street Rails, Vol. III.; Rail Fastenings, Vol. IV.; Steel Angles and Other Shapes, Vol. V.
Each Vol. of Rails arranged according to weight.

Alexandria Coal Co.,—S. $\frac{100}{100}$.
Alger, R. A. & J. S. Newberry,—S. $\frac{100}{100}$, $\frac{111}{111}$.
Alger, Smith & Co.,—S. $\frac{111}{111}$, $\frac{112}{112}$.
Allegheny Valley R. R.,—S. $\frac{112}{112}$, $\frac{113}{113}$, I. $\frac{113}{113}$, $\frac{114}{114}$.
Allegheny Valley R. R., (Bennett Branch),—I. $\frac{114}{114}$.
Allen, C. D.,—S. $\frac{114}{114}$, $\frac{115}{115}$.
American Iron Mt. Mining Co.,—I. $\frac{115}{115}$.
Amygdaloid Mining Co.,—I. $\frac{115}{115}$.
Argyle Coal Co.,—S. $\frac{115}{115}$.
Arizona Copper Co.,—S. $\frac{115}{115}$.
Ashland Coal and Iron Ry.,—S. $\frac{115}{115}$.
Atchison and Nebraska R. R.,—I. $\frac{115}{115}$.
Atchison, Topeka and Santa Fe R. R.,—I. $\frac{115}{115}$, $\frac{116}{116}$.
Athol and Enfield R. R.,—I. $\frac{116}{116}$.
Atlantic and Danville R. R.,—S. $\frac{116}{116}$.
Atlantic and Great Western R. R.,—I. $\frac{116}{116}$.
Atlantic and Pacific R. R.,—I. $\frac{116}{116}$, $\frac{117}{117}$.
Bald Eagle Valley R. R.,—I. $\frac{117}{117}$.
Baltimore and Delta R. R.,—S. $\frac{117}{117}$.
Baltimore and Ohio R. R.,—S. $\frac{117}{117}$, $\frac{118}{118}$.
Baltimore and Potomac R. R.,—S. $\frac{118}{118}$, I. $\frac{118}{118}$.
Baltimore Union Pass. Ry.,—S. $\frac{118}{118}$.
Beaver Creek and C. River C. & C. Co.,—S. $\frac{118}{118}$.
Bedford and Bridgeport R. R.,—I. $\frac{118}{118}$.
Bedford R. R.,—I. $\frac{118}{118}$.
Beecher & Copeland,—S. $\frac{118}{118}$.
Bellefontaine R. R.,—I. $\frac{118}{118}$.
Bellefonte and Snow Shoe R. R.,—S. $\frac{118}{118}$, $\frac{119}{119}$.
Bell, Lewis & Yates,—S. $\frac{119}{119}$.
Bell, Thos. W.,—S. $\frac{119}{119}$.
Bells Gap R. R.,—I. $\frac{119}{119}$, $\frac{120}{120}$, S. $\frac{120}{120}$.
Bliss and Marshall,—S. $\frac{120}{120}$, $\frac{121}{121}$.
Blodgett and Byrne,—S. $\frac{121}{121}$.
Boston and Providence R. R.,—S. $\frac{121}{121}$.
Boston, Lowell and Nashua R. R.,—S. $\frac{121}{121}$, $\frac{122}{122}$.
Bowers, Brown & Co.,—S. $\frac{122}{122}$.
Bridgeport and Saco R. R.,—S. $\frac{122}{122}$.
Brooklyn St. Ry.,—S. $\frac{122}{122}$.
Brown, Howard & Co.,—S. $\frac{122}{122}$.
Buffalo and Erie R. R.,—I. $\frac{122}{122}$.
Buffalo and Jamestown R. R.,—S. $\frac{122}{122}$.
Buffalo, Corry and Pittsburgh R. R.,—I. $\frac{122}{122}$.
Buffalo, New York and Philadelphia R. R.,—S. $\frac{122}{122}$, $\frac{123}{123}$, $\frac{124}{124}$, I. $\frac{124}{124}$.
Buffalo, Pittsburgh and Western R. R.,—S. $\frac{124}{124}$.
Buffalo Valley R. R.,—I. $\frac{124}{124}$.
Burlington and Missouri R. R.,—S. $\frac{124}{124}$, $\frac{125}{125}$, I. $\frac{125}{125}$, $\frac{126}{126}$, $\frac{127}{127}$.
Burlington and Missouri River R. R. of Iowa,—I. $\frac{127}{127}$.
Burlington and Missouri River R. R. of Nebraska,—I. $\frac{127}{127}$, $\frac{128}{128}$.
Burlington and North Western Narrow Gauge R. R.,—I. $\frac{128}{128}$.
Burnes & Noakes,—S. $\frac{128}{128}$.

Cairo and Vincennes R. R.,—S. $\frac{128}{128}$, ($\frac{129}{129}$).
Calumet and Hecla Mining Co.,—I. $\frac{129}{129}$, $\frac{130}{130}$, S. $\frac{130}{130}$, $\frac{131}{131}$.
Campbell's Creek Coal Co.,—S. $\frac{131}{131}$, $\frac{132}{132}$.
Carolina Central R. R.,—S. $\frac{132}{132}$, $\frac{133}{133}$.
Central R. R. of New Jersey,—S. $\frac{133}{133}$.
Central Pacific R. R.,—S. $\frac{133}{133}$, $\frac{134}{134}$.
Cessna, Daniel,—S. $\frac{134}{134}$.
Charleston M. & M. Co.,—S. $\frac{134}{134}$.
Charlotte Furnace Co.,—S. $\frac{134}{134}$.
Chartiers R. R.,—I. $\frac{134}{134}$.
Chesapeake and Ohio R. R.,—S. $\frac{134}{134}$, $\frac{135}{135}$.
Cheshire R. R.,—S. $\frac{135}{135}$.
Chicago and Alton R. R.,—I. $\frac{135}{135}$.
Chicago and Canada Southern R. R.,—I. $\frac{135}{135}$.
Chicago and Galena Union R. R.,—I. $\frac{135}{135}$.
Chicago and Michigan Lake Shore R. R.,—I. $\frac{135}{135}$, $\frac{136}{136}$, $\frac{137}{137}$.
Chicago and Northwestern R. R.,—S. $\frac{136}{136}$, $\frac{137}{137}$, I. $\frac{137}{137}$.
Chicago and Southwestern R. R.,—I. $\frac{137}{137}$, $\frac{138}{138}$.
Chicago and W. Dummy Co.,—S. $\frac{138}{138}$.
Chicago, Burlington and Quincy R. R.,—S. $\frac{138}{138}$, $\frac{139}{139}$, $\frac{140}{140}$, I. $\frac{140}{140}$.
Chicago City R. R.,—I. $\frac{140}{140}$.
Chicago, Milwaukee and St. Paul R. R.,—S. $\frac{140}{140}$.
Chicago, Rock Island and Pacific R. R.,—I. $\frac{140}{140}$, $\frac{141}{141}$, $\frac{142}{142}$, S. $\frac{142}{142}$.
Chicago, St. Louis and New Orleans R. R.,—S. $\frac{142}{142}$, $\frac{143}{143}$, $\frac{144}{144}$, I. $\frac{144}{144}$.
Chippewa Lumber & Boom Co.,—S. $\frac{144}{144}$.
Chippewa Lumber Co.,—S. $\frac{144}{144}$.
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Cincinnati and Springfield R. R.,—I. $\frac{144}{144}$.
Cincinnati, Hamilton and Dayton R. R.,—S. $\frac{144}{144}$, $\frac{145}{145}$, $\frac{146}{146}$, $\frac{147}{147}$, $\frac{148}{148}$.
Cincinnati Northern R. R.,—S. $\frac{148}{148}$.
Cincinnati Northwestern R. R.,—S. $\frac{148}{148}$, $\frac{149}{149}$.
Cincinnati, Richmond and Fort Wayne R. R.,—I. $\frac{149}{149}$.
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Cincinnati, Van Wert and M. C. Con. Co.,—S. $\frac{149}{149}$.
Clark Mines, (Michigan),—I. $\frac{149}{149}$.
Clarksburg, Weston and Greenfield R. R.,—S. $\frac{149}{149}$.
Cleveland and Pittsburgh R. R.,—S. $\frac{149}{149}$, I. $\frac{149}{149}$, $\frac{150}{150}$, $\frac{151}{151}$.
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 Connecticut and Passumpsic R. R.,—S. $\frac{3}{8}$ ¢.
 Connotton Valley R. R.,—S. $\frac{3}{4}$ ¢.
 Consolidation Coal Co.,—S. $\frac{3}{4}$ ¢.
 Cook, D. S.,—S. $\frac{1}{4}$ ¢.
 Cowley, Sumner and Fort Scott R. R.,—I. $\frac{3}{8}$ ¢.
 Cumberland and Pennsylvania R. R.,—S. $\frac{3}{4}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢, $\frac{1}{10}$ ¢.
 Cumberland Hyd. Cement Co.,—S. $\frac{2}{10}$ ¢.
 Cumberland Valley R. R.,—S. $\frac{3}{4}$ ¢, I. $\frac{1}{4}$ ¢.
 Cunard Mines,—I. $\frac{1}{4}$ ¢.
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 Delaware and Hudson Canal Co's R. R.,—S. $\frac{3}{8}$ ¢.
 Delaware, Lackawanna and Western R. R.,—S. $\frac{3}{4}$ ¢.
 Delaware, Maryland and Virginia R. R.,—S. $\frac{3}{8}$ ¢.
 Delaware River R. R.,—S. $\frac{3}{8}$ ¢.
 Denver and Rio Grande R. R.,—S. $\frac{3}{4}$ ¢, $\frac{3}{8}$ ¢.
 Des Moines Railway Construction Co.,—I. $\frac{1}{4}$ ¢.
 Detroit and Bay City R. R.,—I. $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢.
 Detroit, Eel River and Illinois R. R.,—I. $\frac{3}{8}$ ¢.
 Detroit, Lansing and Lake Michigan R. R.,—I. $\frac{3}{4}$ ¢.
 Detroit Transit Railway,—I. $\frac{3}{8}$ ¢.
 DuBois and Sioux City R. R.,—I. $\frac{1}{4}$ ¢.
 Duaneleith and Dubuque Bridge Co.,—S. $\frac{3}{8}$ ¢.
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 East Lexington and Big Sandy R. R.,—S. $\frac{3}{8}$ ¢.
 East Tennessee, Virginia and Georgia R. R.,—S. $\frac{3}{4}$ ¢.
 Eden Park St. Ry.,—S. $\frac{2}{10}$ ¢.
 Eel River R. R.,—S. $\frac{3}{8}$ ¢.
 Elizabethtown and Paducah R. R.,—I. $\frac{3}{8}$ ¢.
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 Erie Railway,—S. $\frac{3}{4}$ ¢.
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 Fairchance Furnace Co.,—S. $\frac{2}{10}$ ¢.
 Fayette Coke and Furnace Co.,—S. $\frac{3}{4}$ ¢.
 Fire Creek Coal and Coke Co.,—S. $\frac{3}{4}$ ¢.
 Fisher, Miller & Co.,—S. $\frac{1}{10}$ ¢.
 Fitchburg R. R.,—S. $\frac{3}{8}$ ¢.
 Fletcher, Pack & Co.,—S. $\frac{3}{4}$ ¢.
 Flint and Pere Marquette R. R.,—S. $\frac{3}{4}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢.
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 Fort Worth St. Ry.,—S. $\frac{1}{10}$ ¢.
 Galena and Southern Wisconsin R. R.,—I. $\frac{3}{4}$ ¢.
 Galveston City Ry. Co.,—S. $\frac{3}{4}$ ¢.
 Garden City Mining Co.,—I. $\frac{1}{4}$ ¢.
 Gay Mfg. Co.,—S. $\frac{3}{4}$ ¢.
 George, D. C.,—S. $\frac{3}{4}$ ¢.
 George's Creek and Cumberland R. R.,—S. $\frac{3}{4}$ ¢.
 Gillman, Clinton and Springfield R. R.,—I. $\frac{3}{4}$ ¢.
 Grand Haven Lumber Co.,—S. $\frac{3}{4}$ ¢.
 Grand Rapids and Indiana R. R.,—S. $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢, $\frac{1}{10}$ ¢,
 I. $\frac{2}{10}$ ¢.

Grand Rapids, Newaygo and Lake Shore R. R.,—S. $\frac{3}{8}$ ¢,
 ($\frac{3}{4}$ ¢), $\frac{3}{8}$ ¢.
 Gratiwick, Smith & Fryer Lumber Co.,—S. $\frac{3}{4}$ ¢.
 Green Bay, Winona and St. Paul R. R.,—S. $\frac{3}{8}$ ¢.
 Greenlick Narrow Gauge R. R.,—S. $\frac{3}{4}$ ¢.
 Gulf, Colorado and Santa Fe R. R.,—I. $\frac{3}{4}$ ¢.
 Hamilton St. Ry.,—S. $\frac{1}{10}$ ¢.
 Hannibal and St. Joseph R. R.,—S. $\frac{3}{8}$ ¢.
 Hanover Junction, Hanover and Gettysburg R. R.,—S. $\frac{3}{4}$ ¢.
 Harris, Wm. A.,—S. $\frac{1}{10}$ ¢.
 Hartley & Marshall,—S. $\frac{1}{10}$ ¢.
 Hairy & Friend,—I. $\frac{3}{4}$ ¢.
 Henry, Bayard & Co.,—S. $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢.
 Herkimer, Newport & Poland R. R.,—S. $\frac{3}{8}$ ¢.
 Hillside Coal and Iron Co.,—S. $\frac{1}{10}$ ¢.
 Hoover, Hughes & Co.,—S. $\frac{1}{10}$ ¢.
 Horton, Cray & Co.,—S. $\frac{3}{4}$ ¢.
 Houston St. Ry.,—S. $\frac{3}{4}$ ¢.
 Huntington & Broad Top R. R.,—I. $\frac{2}{10}$ ¢, $\frac{2}{10}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢,
 S. $\frac{3}{8}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢.
 Huntington, C. P.,—S. $\frac{3}{8}$ ¢.
 Illinois and St. Louis Bridge Co.,—S. $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢.
 Illinois and Southern Iowa R. R.,—I. $\frac{1}{4}$ ¢.
 Illinois Central R. R.,—S. $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢.
 Indianapolis and Cincinnati R. R.,—I. $\frac{3}{8}$ ¢, $\frac{1}{4}$ ¢,
 Indianapolis and St. Louis R. R.,—I. $\frac{2}{10}$ ¢.
 Indianapolis, Cincinnati and Lafayette R. R.,—S. $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢.
 International and Great Northern R. R.,—S. $\frac{3}{8}$ ¢.
 International Navigation Co.,—I. $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢, $\frac{2}{10}$ ¢.
 Iron Mountain Co.,—I. $\frac{1}{4}$ ¢.
 Iron Railway,—S. $\frac{3}{8}$ ¢, $\frac{3}{4}$ ¢.
 Ironton R. R.,—I. $\frac{1}{4}$ ¢.
 Isabella Furnace,—S. $\frac{1}{10}$ ¢.
 Iselin & Co., A.,—S. $\frac{3}{8}$ ¢.
 Jackson & Co., E. E.,—S. $\frac{3}{4}$ ¢.
 Jacksonville Southeastern R. R.,—S. $\frac{3}{8}$ ¢, $\frac{1}{10}$ ¢.
 Jeffersonville, Madison and Indianapolis R. R.,—S. $\frac{3}{4}$ ¢.
 Johnson & Son, Greenleaf,—S. $\frac{1}{10}$ ¢.
 Juniata Mining Co.,—S. $\frac{3}{4}$ ¢.
 Juniata Valley Coal Co.,—S. $\frac{1}{10}$ ¢.
 Kansas City and Cameron R. R.,—I. $\frac{1}{4}$ ¢.
 Kansas City Cable Ry.,—S. $\frac{1}{10}$ ¢.
 Kansas City, St. Joseph and Council Bluffs R. R.,—I. $\frac{3}{4}$ ¢, $\frac{3}{8}$ ¢.
 Kansas City Street Ry.,—S. $\frac{3}{4}$ ¢.
 Kansas Pacific R. R.,—I. $\frac{1}{4}$ ¢.
 Karns City and Butler R. R.,—S. $\frac{3}{4}$ ¢.
 Kenble Coal and Iron Company,—I. $\frac{1}{4}$ ¢.
 Kendell and Eldred R. R.,—I. $\frac{3}{4}$ ¢.
 Kentucky Central R. R.,—I. $\frac{3}{4}$ ¢, S. $\frac{3}{8}$ ¢.
 Keokuk and Des Moines R. R.,—S. $\frac{3}{4}$ ¢, I. $\frac{2}{10}$ ¢.
 Keystone Coal Co.,—S. $\frac{3}{4}$ ¢.
 Laclede Iron Manufacturing Co.,—I. $\frac{1}{4}$ ¢.
 Ladd, W. S.,—S. $\frac{3}{4}$ ¢.
 Lake Angeline Mining Co.,—I. $\frac{1}{4}$ ¢.
 Lake Erie and Western R. R.,—S. $\frac{3}{4}$ ¢.
 Lake Shore and Michigan Southern R. R.,—S. $\frac{3}{8}$ ¢, I. $\frac{3}{4}$ ¢, $\frac{2}{10}$ ¢,
 $\frac{3}{8}$ ¢.
 Lake Superior and Mississippi R. R.,—I. $\frac{3}{4}$ ¢, $\frac{3}{8}$ ¢.

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INDEX FOR "T" RAILS,—RAILROADS OR CONTRACTORS. *Continued.*

Lamb, H. N.,—S. $\frac{3}{4}$ ¢.
Land Grant R. R.,—I. $\frac{1}{4}$ ¢.
Lawrence R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Leavenworth and Des Moines R. R.,—I. $\frac{1}{4}$ ¢.
Leavenworth, Lawrence and Galveston R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Lehigh Valley R. R.,—S. $\frac{3}{4}$ ¢.
Lexington and Big Sandy R. R.,—S. $\frac{3}{4}$ ¢, I. $\frac{1}{4}$ ¢.
Ligonier Valley R. R.,—I. $\frac{1}{4}$ ¢, $\frac{3}{4}$ ¢, S. $\frac{1}{4}$ ¢.
Lincoln and Northwestern R. R.,—I. $\frac{1}{4}$ ¢.
Little Miami, Columbus and Xenia R. R.,—I. $\frac{1}{4}$ ¢.
Lonias, Forger Bridge Co.,—S. $\frac{3}{4}$ ¢.
Louisville B. and I. Co.,—S. $\frac{1}{4}$ ¢.
Louisville and Frankfort R. R.,—I. $\frac{1}{4}$ ¢.
Louisville and Nashville R. R.,—S. $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢, I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Louisville, Cincinnati and Lexington R. R.,—S. $\frac{1}{4}$ ¢, I. $\frac{1}{4}$ ¢.
Louisville, New Albany and Chicago R. R.,—S. $\frac{1}{4}$ ¢.
Louisville, Paducah and Southwestern R. R.,—S. $\frac{3}{4}$ ¢.
Lykens Valley Coal Co.,—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Lykens Valley R. R.,—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Lyon, Thos. R.,—S. $\frac{1}{4}$ ¢.

Maine Central R. R.,—S. $\frac{3}{4}$ ¢.
Mapleton Coal Co.,—I. $\frac{1}{4}$ ¢.
Maryland Central R. R.,—S. $\frac{3}{4}$ ¢.
Maryland Union Coal Co.,—S. $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Memphis and Little Rock R. R.,—S. $\frac{1}{4}$ ¢.
Monongahela and P. Creek Gas Coal Co.,—S. $\frac{3}{4}$ ¢.
Mexican Central R. R.,—S. $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢.
Michigan Central R. R.,—S. $\frac{3}{4}$ ¢.
Michigan Southern and Northern Indiana R. R.,—I. $\frac{1}{4}$ ¢.
Midland Construction Co.,—S. $\frac{3}{4}$ ¢.
Miffin and Centre County R. R.,—I. $\frac{1}{4}$ ¢.
Miller, M. Erskine,—S. $\frac{1}{4}$ ¢.
Miller, Thomas & Co.,—S. $\frac{3}{4}$ ¢.
Mill Springs, Current River and Barnesville R. R.,—S. $\frac{1}{4}$ ¢.
Milwaukee and Northern R. R.,—S. $\frac{1}{4}$ ¢.
Mineral Railroad and Mining Co.,—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Mineral Range R. R.,—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, I. $\frac{1}{4}$ ¢.
Mississippi and Tennessee R. R.,—I. $\frac{1}{4}$ ¢, S. $\frac{3}{4}$ ¢.
Mississippi Central R. R.,—S. $\frac{3}{4}$ ¢, I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Missouri, Kansas and Texas Railway,—S. $\frac{1}{4}$ ¢, ($\frac{1}{4}$ ¢), $\frac{1}{4}$ ¢.
Missouri River, Fort Scott and Gulf R. R.,—I. $\frac{1}{4}$ ¢.
Missouri River, Pacific R. R.,—I. $\frac{1}{4}$ ¢.
Mobile and Montgomery R. R.,—S. $\frac{3}{4}$ ¢.
Moredale Colliery,—I. $\frac{1}{4}$ ¢.
Morley Bros.,—S. $\frac{1}{4}$ ¢.
Morrissdale Coal Co.,—I. $\frac{1}{4}$ ¢.
Moshassuck Valley R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Mount Gilead Short Line R. R.,—I. $\frac{1}{4}$ ¢.
Mount Pleasant and Broad Ford R. R.,—I. $\frac{1}{4}$ ¢.
Mutual Mining and Mfg. Co.,—S. $\frac{1}{4}$ ¢.
McClure & Co.,—S. $\frac{1}{4}$ ¢.
McClure & Co.,—S. $\frac{1}{4}$ ¢.
McFadden & Kelly,—S. $\frac{1}{4}$ ¢.
McGovern, Son & Co., John,—S. $\frac{1}{4}$ ¢.
McLaughlin, P.,—S. $\frac{1}{4}$ ¢.

Nashville, Chattanooga and St. Louis R. R.,—S. $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢.
Natchez, Jackson and Columbus R. R.,—I. $\frac{1}{4}$ ¢.

New Orleans, Jackson and Northern R. R.,—S. $\frac{3}{4}$ ¢.
New Orleans, St. Louis and Chicago R. R.,—I. $\frac{1}{4}$ ¢.
New York Elevated Railway,—S. $\frac{3}{4}$ ¢.
New York, Lake Erie and Western R. R.,—S. $\frac{3}{4}$ ¢.
New York, New England and W. Invest. Co.,—S. $\frac{1}{4}$ ¢.
New York, Phila. and Norfolk R. R.,—S. $\frac{3}{4}$ ¢.
Norfolk & Western R. R.,—S. $\frac{1}{4}$ ¢.
Northern Central Railway (of Pa.),—S. $\frac{3}{4}$ ¢, I. $\frac{1}{4}$ ¢.
Northern Illinois Coal and Iron Co.,—I. $\frac{1}{4}$ ¢.
Northern Pacific R. R.,—I. $\frac{1}{4}$ ¢.
Northern R. R. (of N. H.),—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Northwestern Railway,—I. $\frac{1}{4}$ ¢.
Northwest Mining & Exchange Co.,—S. $\frac{1}{4}$ ¢.

Ohio and Mississippi R. R.,—I. $\frac{1}{4}$ ¢, S. $\frac{3}{4}$ ¢.
Ohio Central Railway,—I. $\frac{1}{4}$ ¢.
Ohio Southern R. R.,—S. $\frac{3}{4}$ ¢.
Oil City and Chicago R. R.,—S. $\frac{1}{4}$ ¢.
Oil Creek and Allegheny Valley R. R.,—S. $\frac{1}{4}$ ¢, I. $\frac{1}{4}$ ¢.
Old Colony R. R.,—S. $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢.
Olean and Salamanca R. R.,—S. $\frac{1}{4}$ ¢.
Olean, Bradford and Warren R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Omaha and Northwestern R. R.,—I. $\frac{1}{4}$ ¢.

Pacific Improvement Co.,—S. $\frac{3}{4}$ ¢.
Pacific R. R.,—I. $\frac{1}{4}$ ¢.
Pacific R. R. of Mo.,—I. $\frac{1}{4}$ ¢.
Pacific Railway Improvement Co.,—I. $\frac{1}{4}$ ¢.
Palmer, Nichols & Co.,—S. $\frac{1}{4}$ ¢.
Parker and Karns City R. R.,—S. $\frac{1}{4}$ ¢.
Patomac Coal Co.,—S. $\frac{1}{4}$ ¢.
Peachbottom R. R.,—S. $\frac{1}{4}$ ¢.
Penn Gas Coal Co's R. R.,—S. $\frac{3}{4}$ ¢.
Pennsylvania Co.,—S. $\frac{3}{4}$ ¢.
Pennsylvania R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Pensacola and Perdido R. R.,—S. $\frac{1}{4}$ ¢.
Peoria, Pekin and Jacksonville R. R.,—S. $\frac{3}{4}$ ¢.
Peters, R. G.,—S. $\frac{1}{4}$ ¢.
Phelps, Willis,—I. $\frac{1}{4}$ ¢.
Philadelphia and Erie R. R.,—S. $\frac{3}{4}$ ¢, $\frac{1}{4}$ ¢, I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Philadelphia, Wilmington and Baltimore R. R.,—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Phoenix Copper Co.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Piper & Co., W. H.,—S. $\frac{1}{4}$ ¢.
Pittsburgh and Connellsville R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Pittsburgh and Lake Angeline I. C.,—S. $\frac{1}{4}$ ¢.
Pittsburgh, Castle Shannon and Washington R. R.,—I. $\frac{1}{4}$ ¢.
Pittsburgh, Cincinnati and St. Louis Railway,—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Pittsburgh, Cincinnati and St. Louis Railway, C. and M. V. Division,—I. $\frac{1}{4}$ ¢.
Pittsburgh, Fort Wayne and Chicago R. R.,—S. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Pittsburgh Southern R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Pittsburgh, Titusville and Buffalo R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Pittsburgh, Virginia and Charlestown R. R.,—I. $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢, $\frac{1}{4}$ ¢.
Pittsburgh, Wheeling and Kentucky R. R.,—I. $\frac{1}{4}$ ¢.
Pontiac, Oxford & Port Austin R. R.,—S. $\frac{1}{4}$ ¢.

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INDEX FOR "T" RAILS,—RAILROADS OR CONTRACTORS.

S.=Steel. † lbs.
I.=Iron. † No.

Steel T Rails, Vol. I; Iron T Rails, Vol. II; Steel Street Rails, Vol. III; Rail Fastenings, Vol. IV; Steel Angles and Other Shapes, Vol. V.
Each Vol. of Rails arranged according to weight.

Alexandria Coal Co.,—S. $\frac{1}{16}$ ¢.
Alger, R. A. & J. S. Newberry,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Alger, Smith & Co.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Allegheny Valley R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Allegheny Valley R. R., (Bennett Branch),—I. $\frac{1}{16}$ ¢.
Allen, C. D.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
American Iron Mt. Mining Co.,—I. $\frac{1}{16}$ ¢.
Amygdaloid Mining Co.,—I. $\frac{1}{16}$ ¢.
Argyle Coal Co.,—S. $\frac{1}{16}$ ¢.
Arizona Copper Co.,—S. $\frac{1}{16}$ ¢.
Ashland Coal and Iron Ry.,—S. $\frac{1}{16}$ ¢.
Atchison and Nebraska R. R.,—I. $\frac{1}{16}$ ¢.
Atchison, Topeka and Santa Fe R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Athol and Enfield R. R.,—I. $\frac{1}{16}$ ¢.
Atlantic and Danville R. R.,—S. $\frac{1}{16}$ ¢.
Atlantic and Great Western R. R.,—I. $\frac{1}{16}$ ¢.
Atlantic and Pacific R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.

Bald Eagle Valley R. R.,—I. $\frac{1}{16}$ ¢.
Baltimore and Delta R. R.,—S. $\frac{1}{16}$ ¢.
Baltimore and Ohio R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Baltimore and Potomac R. R.,—S. $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢.
Baltimore Union Pass. Ry.,—S. $\frac{1}{16}$ ¢.
Beaver Creek and C. River C. & C. Co.,—S. $\frac{1}{16}$ ¢.
Bedford and Bridgeport R. R.,—I. $\frac{1}{16}$ ¢.
Bedford R. R.,—I. $\frac{1}{16}$ ¢.
Beecher & Copeland,—S. $\frac{1}{16}$ ¢.
Bellefontaine R. R.,—I. $\frac{1}{16}$ ¢.
Bellefonte and Snow Shoe R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Bell, Lewis & Yates,—S. $\frac{1}{16}$ ¢.
Bell, Thos. W.,—S. $\frac{1}{16}$ ¢.
Bells Gap R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, S. $\frac{1}{16}$ ¢.
Bliss and Marshall,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Blodget and Byrne,—S. $\frac{1}{16}$ ¢.
Boston and Providence R. R.,—S. $\frac{1}{16}$ ¢.
Boston, Lowell and Nashua R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Bowers, Brown & Co.,—S. $\frac{1}{16}$ ¢.
Bridgeton and Saco R. R.,—S. $\frac{1}{16}$ ¢.
Brooklyn St. Ry.,—S. $\frac{1}{16}$ ¢.
Brown, Howard & Co.,—S. $\frac{1}{16}$ ¢.
Buffalo and Erie R. R.,—I. $\frac{1}{16}$ ¢.
Buffalo and Jamestown R. R.,—S. $\frac{1}{16}$ ¢.
Buffalo, Corry and Pittsburgh R. R.,—I. $\frac{1}{16}$ ¢.
Buffalo, New York and Philadelphia R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢.

Buffalo, Pittsburgh and Western R. R.,—S. $\frac{1}{16}$ ¢.
Buffalo Valley R. R.,—I. $\frac{1}{16}$ ¢.
Burlington and Missouri R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Burlington and Missouri River R. R. of Iowa,—I. $\frac{1}{16}$ ¢.
Burlington and Missouri River R. R. of Nebraska,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Burlington and North Western Narrow Gauge R. R.,—I. $\frac{1}{16}$ ¢.
Burnes & Noakes,—S. $\frac{1}{16}$ ¢.

Cairo and Vincennes R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Calumet and Hecla Mining Co.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Campbell's Creek Coal Co.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Carolina Central R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Central R. R. of New Jersey,—S. $\frac{1}{16}$ ¢.
Central Pacific R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Cessna, Daniel,—S. $\frac{1}{16}$ ¢.
Charleston M. & M. Co.,—S. $\frac{1}{16}$ ¢.
Charlotte Furnace Co.,—S. $\frac{1}{16}$ ¢.
Chartiers R. R.,—I. $\frac{1}{16}$ ¢.
Chesapeake and Ohio R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Cheshire R. R.,—S. $\frac{1}{16}$ ¢.
Chicago and Alton R. R.,—I. $\frac{1}{16}$ ¢.
Chicago and Canada Southern R. R.,—I. $\frac{1}{16}$ ¢.
Chicago and Galena Union R. R.,—I. $\frac{1}{16}$ ¢.
Chicago and Michigan Lake Shore R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Chicago and Northwestern R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢.
Chicago and Southwestern R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Chicago and W. Dummy Co.,—S. $\frac{1}{16}$ ¢.
Chicago, Burlington and Quincy R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢.

Chicago City R. R.,—I. $\frac{1}{16}$ ¢.
Chicago, Milwaukee and St. Paul R. R.,—S. $\frac{1}{16}$ ¢.
Chicago, Rock Island and Pacific R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, S. $\frac{1}{16}$ ¢.

Chicago, St. Louis and New Orleans R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢.

Chippewa Lumber & Boom Co.,—S. $\frac{1}{16}$ ¢.
Chippewa Lumber Co.,—S. $\frac{1}{16}$ ¢.
Cincinnati and Eastern R. R.,—S. $\frac{1}{16}$ ¢.
Cincinnati and Springfield R. R.,—I. $\frac{1}{16}$ ¢.
Cincinnati, Hamilton and Dayton R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.

Cincinnati Northern R. R.,—S. $\frac{1}{16}$ ¢.
Cincinnati Northwestern R. R.,—S. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Cincinnati, Richmond and Fort Wayne R. R.,—I. $\frac{1}{16}$ ¢.
Cincinnati Southern R. R.,—S. $\frac{1}{16}$ ¢.
Cincinnati, Van Wert and M. C. Con. Co.,—S. $\frac{1}{16}$ ¢.
Clark Mines, (Michigan),—I. $\frac{1}{16}$ ¢.
Clarksburg, Weston and Greenfield R. R.,—S. $\frac{1}{16}$ ¢.
Cleveland and Pittsburgh R. R.,—S. $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Cleveland and Toledo R. R.,—I. $\frac{1}{16}$ ¢.
Cleveland, Columbus and Cincinnati R. R.,—I. $\frac{1}{16}$ ¢.
Cleveland, Columbus, Cincinnati and Indianapolis R. R.,—I. $\frac{1}{16}$ ¢.

Cleveland, Mt. Vernon and Columbus R. R.,—S. $\frac{1}{16}$ ¢, I. $\frac{1}{16}$ ¢.
Cleveland, Mt. Vernon and Delaware R. R.,—I. $\frac{1}{16}$ ¢.
Cleveland, Painesville and Ashtabula R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Collins, Thos.,—S. $\frac{1}{16}$ ¢.
Columbus and Hocking Valley R. R.,—I. $\frac{1}{16}$ ¢.
Columbus and Indianapolis Central R. R.,—I. $\frac{1}{16}$ ¢, $\frac{1}{16}$ ¢.
Columbus, Chicago and Indiana Central R. R.,—I. $\frac{1}{16}$ ¢.

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INDEX FOR "T" RAILS,—RAILROADS OR CONTRACTORS. *Continued.*

Concord R. R.,—S. $\frac{3}{4}$ ¢.
 Conglomerate Mining Co.,—S. $\frac{50}{100}$ ¢.
 Connecticut and Passumpsic R. R.,—S. $\frac{3}{8}$ ¢.
 Connotton Valley R. R.,—S. $\frac{3}{4}$ ¢.
 Consolidation Coal Co.,—S. $\frac{3}{4}$ ¢.
 Cook, D. S.,—S. $\frac{3}{4}$ ¢.
 Cowley, Sumner and Fort Scott R. R.,—I. $\frac{3}{8}$ ¢.
 Cumberland and Pennsylvania R. R.,—S. $\frac{3}{8}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{8}$ ¢, $\frac{3}{8}$ ¢.
 Cumberland Hyd. Cement Co.,—S. $\frac{7}{16}$ ¢.
 Cumberland Valley R. R.,—S. $\frac{3}{8}$ ¢, I. $\frac{1}{4}$ ¢.
 Cunard Mines,—I. $\frac{1}{4}$ ¢.
 Danville and New River R. R.,—S. $\frac{3}{8}$ ¢, $\frac{3}{8}$ ¢.
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West Jersey R. R.,—S. $\frac{1}{2}$ ¢, I. $\frac{1}{2}$ ¢.

Westmoreland Coal Co.,—I. $\frac{1}{2}$ ¢.

West Virginia Cent. and Pittsburgh R. R.,—S. $\frac{1}{2}$ ¢, $\frac{1}{2}$ ¢.

Wheeler & Dusenbury,—S. $\frac{1}{2}$ ¢.

Wheeling and Elm Grove R. R.,—S. $\frac{1}{2}$ ¢.

Whitehead & Co.,—S. $\frac{1}{2}$ ¢.

Williams & Co., Frank,—S. $\frac{1}{2}$ ¢.

Wilmington and Northern R. R.,—S. $\frac{1}{2}$ ¢.

Wilmington and Weldou R. R.,—S. $\frac{1}{2}$ ¢.

Wilson & Co., R. T.,—S. $\frac{1}{2}$ ¢, $\frac{1}{2}$ ¢, $\frac{1}{2}$ ¢.

Wing, G. L. & D. E.,—S. $\frac{1}{2}$ ¢, $\frac{1}{2}$ ¢.

Winona and St. Peters R. R.,—I. $\frac{1}{2}$ ¢.

Wisconsin Central R. R.,—I. $\frac{1}{2}$ ¢.

Wood & Son, John A.,—S. $\frac{1}{2}$ ¢.

Worcester and Schrewsbury R. R.,—S. $\frac{1}{2}$ ¢.

Wright & Tower,—I. $\frac{1}{2}$ ¢.

Yale & Towne Mfg. Co.,—S. $\frac{1}{2}$ ¢, $\frac{1}{2}$ ¢.

Youghiogheny R. R.,—S. $\frac{1}{2}$ ¢, $\frac{1}{2}$ ¢.

Youngstown and Connotton Valley R. R.,—S. $\frac{1}{2}$ ¢.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

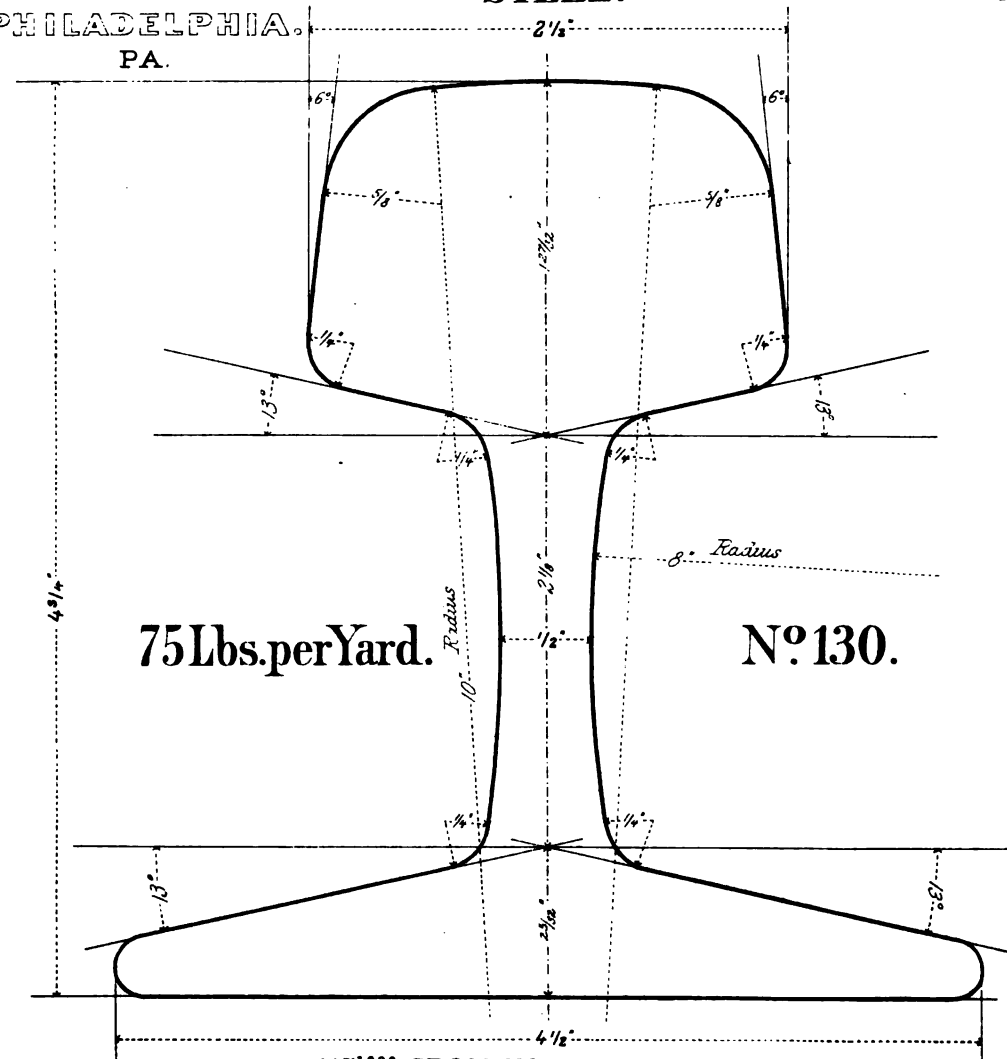
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **75**
No. **130**

75 LBS. No. 130.

Pennsylvania R. R., Main Line, 1885.



117 ~~1118~~ GROSS TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

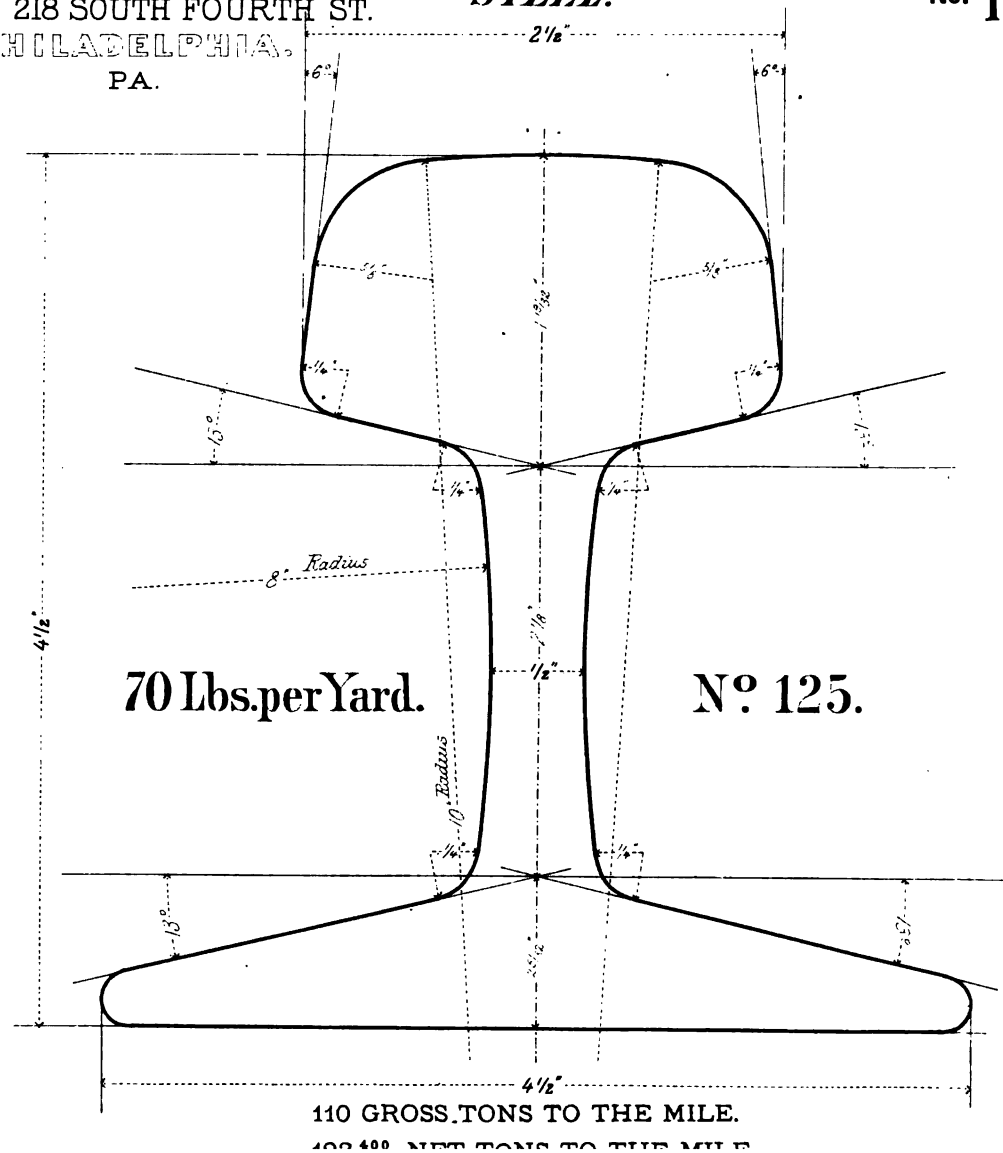
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **70**
No. **125**

70 LBS. No. 125.

Pennsylvania R. R., Principal Branches, 1885.



CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.

PA.

STEEL.

Wt. **67**
No. **29**

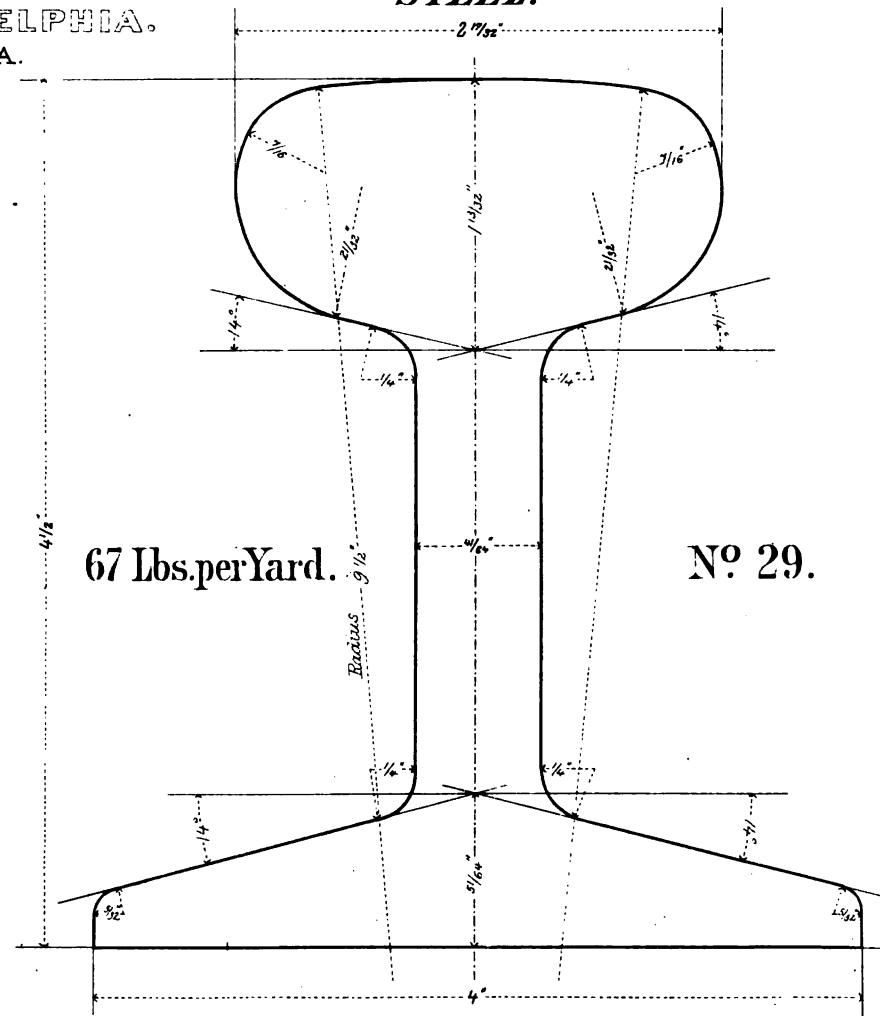
67 LBS. No. 29.

Pennsylvania R. R., 1870-75. See 67, No. 55.

Pittsburgh, Cincinnati and St. Louis Ry., 1874.

See 60. No. 56.

Illinois and St. Louis Bridge Co., 1874. See 67, No. 55.



105,111 GROSS TONS TO THE MILE.

117,111 NET TONS TO THE MILE

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **67**
No. **55**

67 LBS. No. 55.

Pennsylvania R. R., Main Line, 1884.

See 75, No. 130.

Illinois and St. Louis Bridge Co., 1877.

Cumberland and Pennsylvania R. R., 1877-79.

Also 60, No. 56, and 56, No. 73.

Baltimore and Ohio R. R., 1881-83.

Also 60, No. 56.

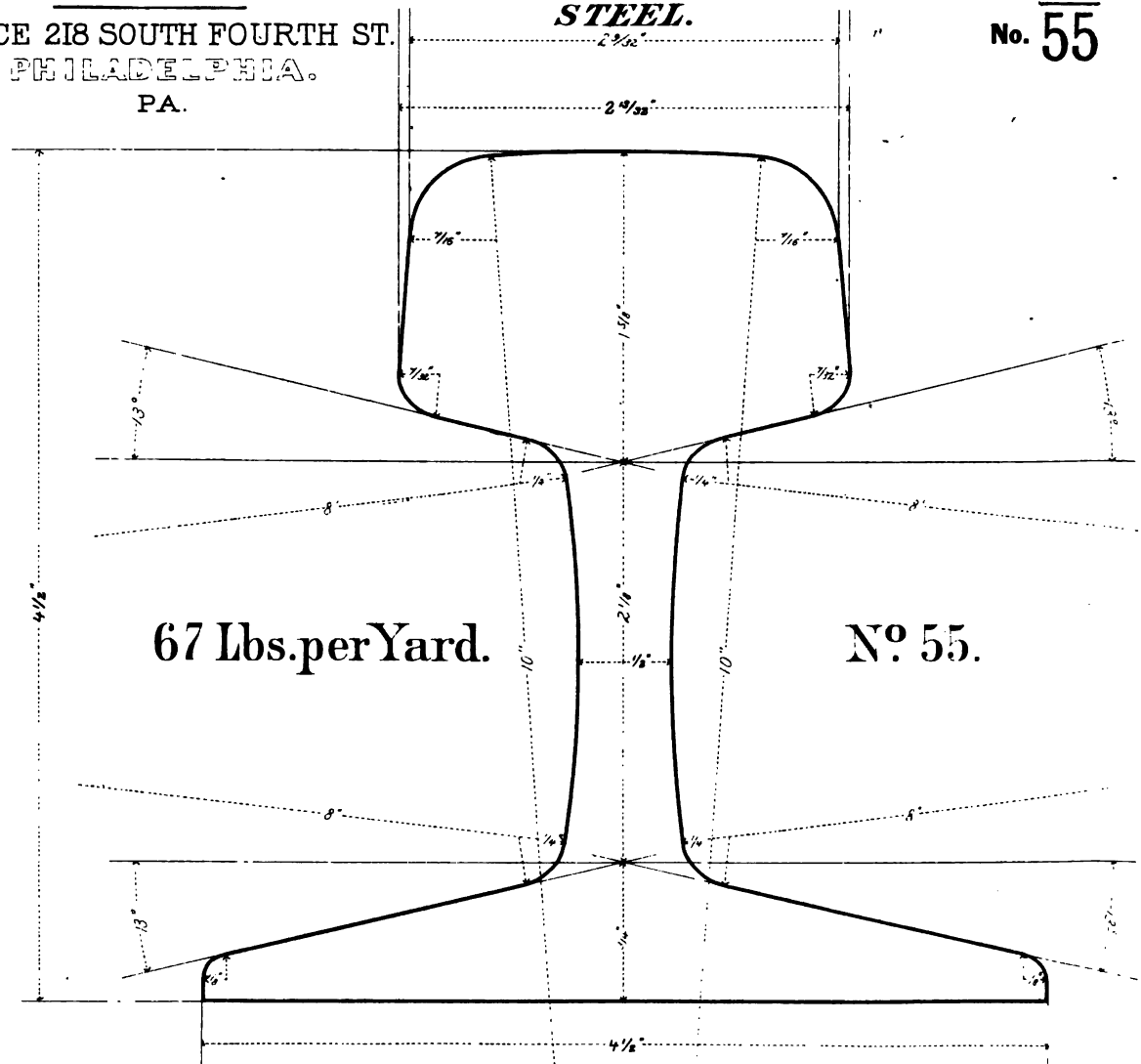
Pittsburgh, Cincinnati and St. Louis R. R., 1881.

Also 60, No. 56.

Huntingdon and Broad Top R. R., 1884.

Buffalo, N. Y. and P. R. R. Co., 1881-83.

George's Creek and Cumberland R. R., 1881.



105 ~~111~~ GROSS TONS TO THE MILE.

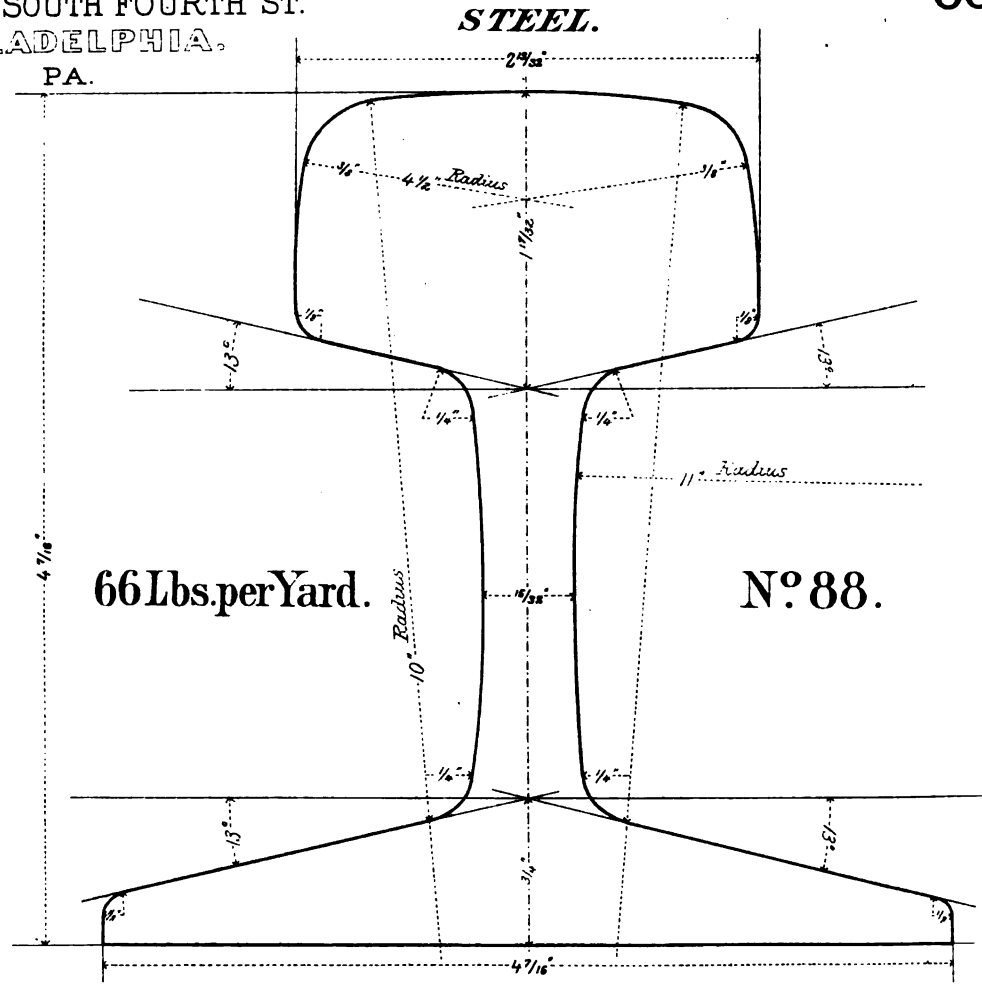
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.

Wt. **66**
No. **88**

66 LBS. No. 88.

Chicago, Burlington and Quincy R. R., Main Line, 1881-82.



103 ¹¹¹⁸/₁₀₀₀ GROSS TONS TO THE MILE.

116 ¹¹¹⁸/₁₀₀₀ NET TONS TO THE MILE.

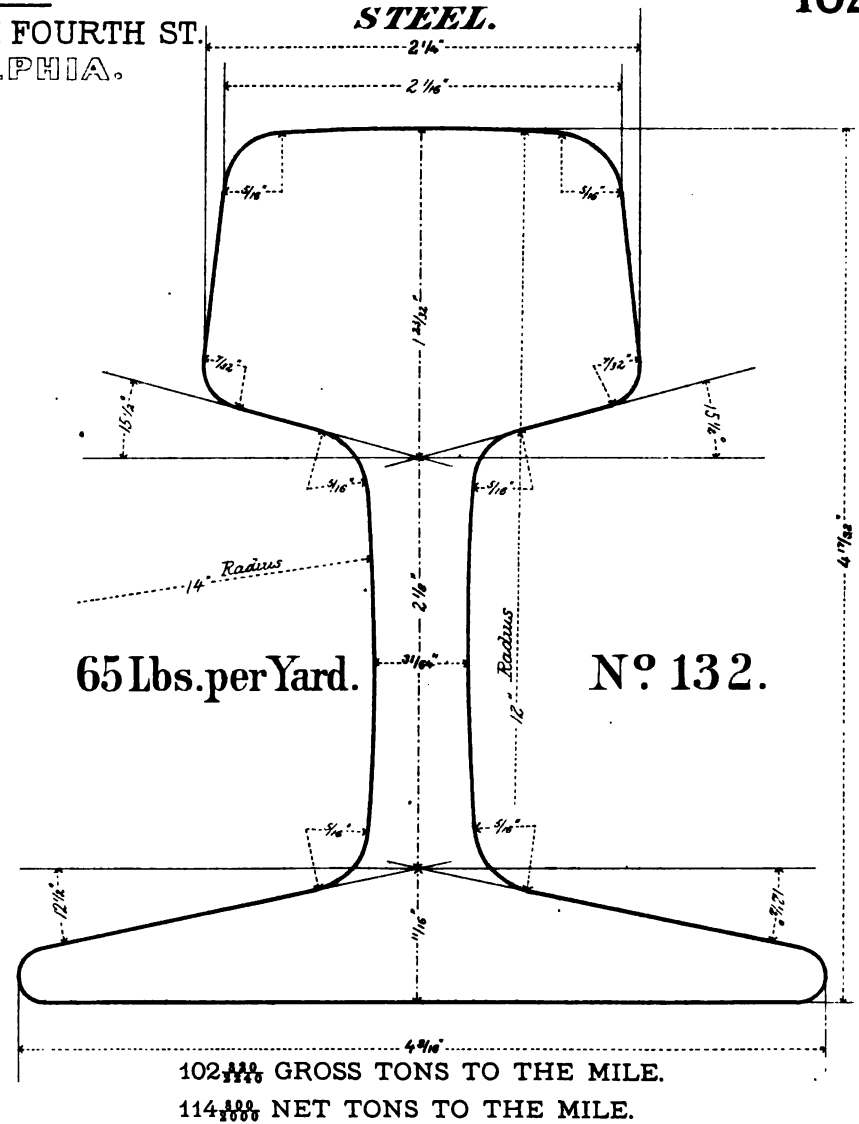
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. 65
No. 132

65 LBS. No. 132.

Cleveland, Columbus, Cincinnati and Indianapolis
R. R. Co., 1885.



CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.

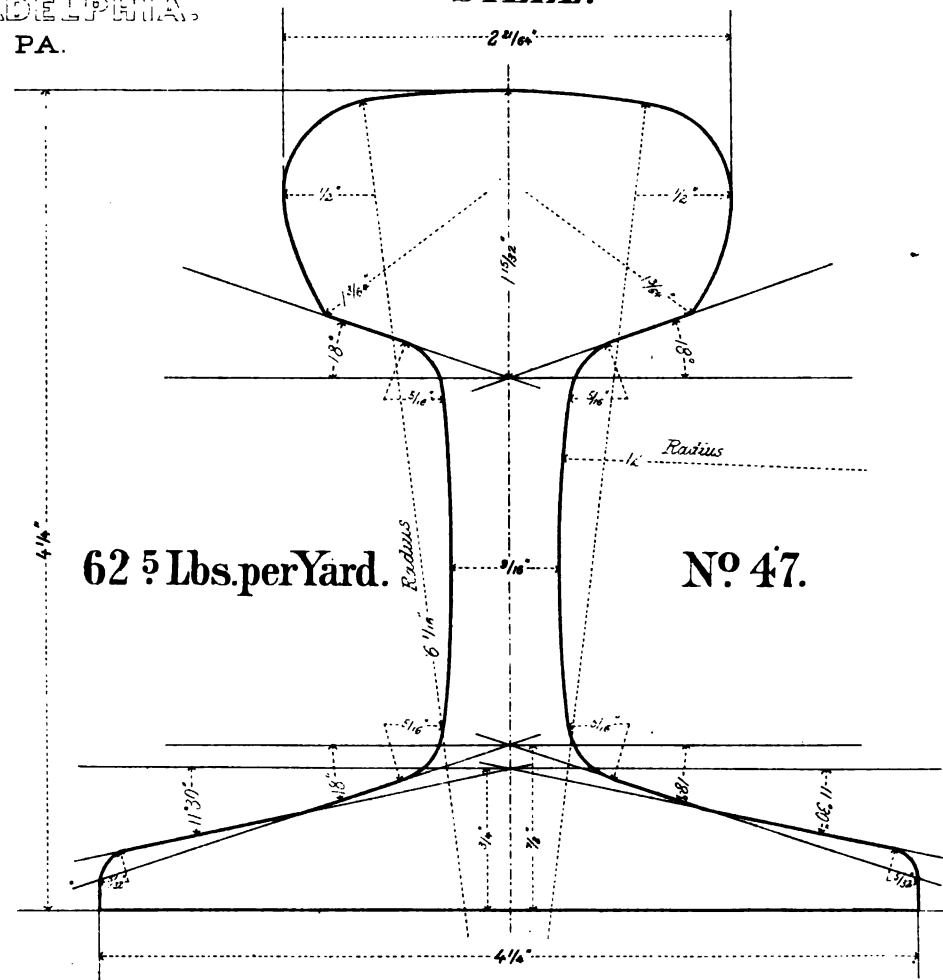
PA.

STEEL.

Wt. 62^5
No. 47

62.5 LBS. No. 47.

Central R. R. of New Jersey, 1874.



98⁴¹⁰/₁₁₄₀ GROSS TONS TO THE MILE.

110 NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

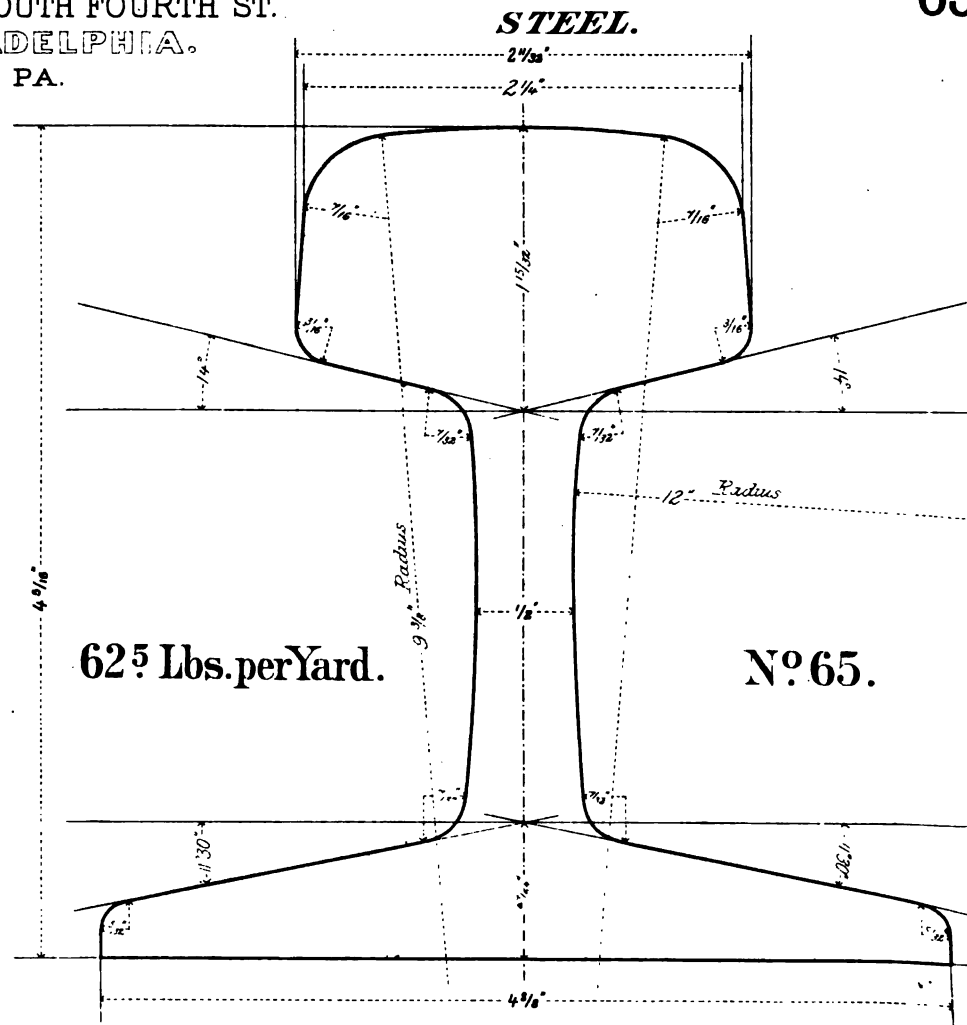
Wt. **62⁵**
No. **65**

62.5 LBS. No. 65.

Erie Railway. 1875-76. (Changed to N. Y., L. E. & W. R. R.)

Lehigh Valley R. R., 1876. See 58, No. 68.

New York, Lake Erie and Western R. R., (63 lbs.,) 1878.



98.44 GROSS TONS TO THE MILE.

110 NET TONS TO THE MILE.

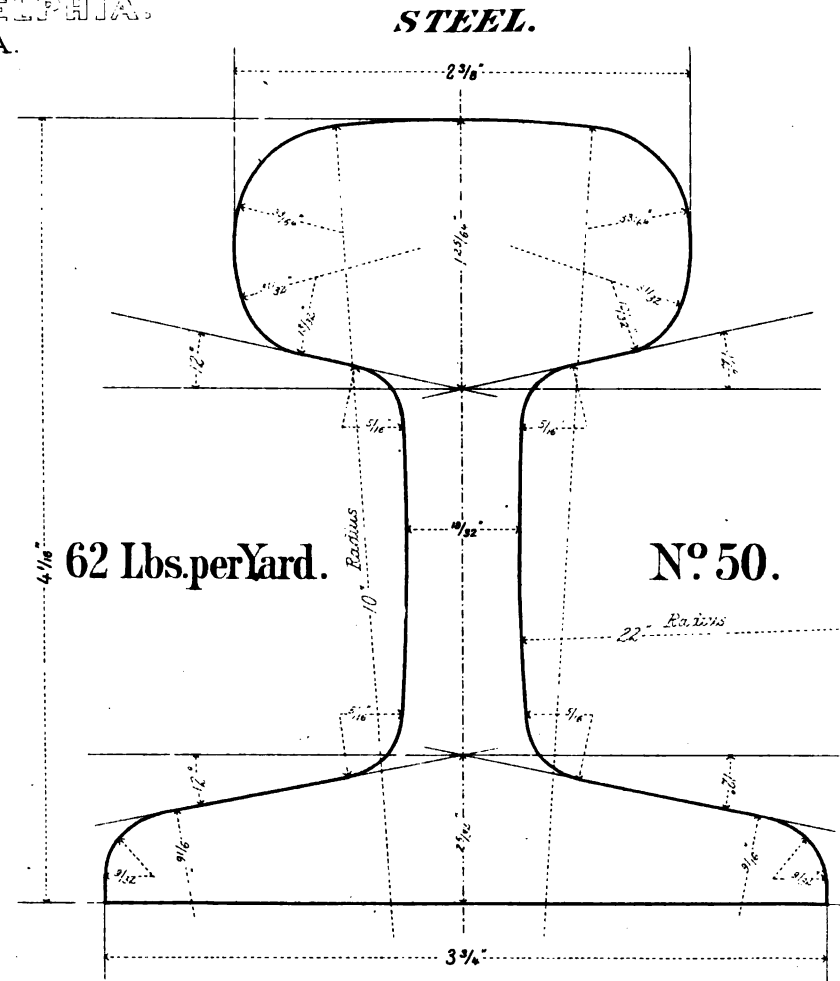
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **62**
No. **50**

62 LBS. No 30.

Delaware and Hudson Canal Co's R. R., 1875.



~~97.110~~ GROSS TONS TO THE MILE.

~~109.110~~ NET TONS TO THE MILE.

CAMBERIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

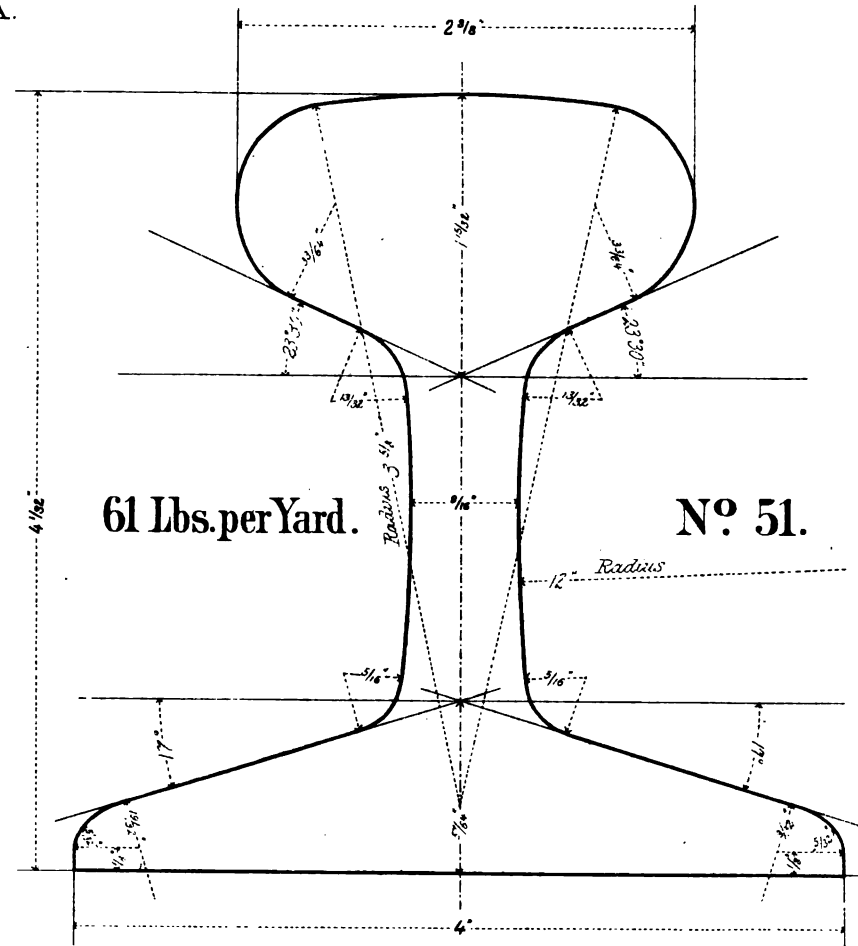
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **61**
No. **51**

STEEL.

61 LBS. No. 51.

Delaware, Lackawanna and Western R. R., 1874.



95 ~~111~~ GROSS TONS TO THE MILE.

107 ~~100~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **32**

60 LBS. No. 32.

Indianapolis, Cincinnati and Lafayette R. R., 1870. See 56, No. 52.

Hannibal and St. Joseph R. R., 1870.

Michigan Central R. R., 1872.

Chicago, Burlington and Quincy R. R., 1868-78.

See 47, No. 86; 56, No. 82; 66, No. 88.

Philadelphia and Erie R. R., 1875. See 60, No. 56.

Allegheny Valley R. R., 1874-75. See 60, No. 56.

Louisville and Nashville R. R., 1873-75. See 58, No. 54.

Huntingdon and Broad Top R. R., 1872-76. See 60, No. 56.

Boston, Lowell and Nashua R. R., 1876.

Burlington & Missouri River R. R., 1868. See 47, No. 86, & 56, No. 82.

Peoria, Pekin and Jacksonville R. R., 1875.

Pittsburgh, Cincinnati and St. Louis R. R., 1874.

See 60, No. 56; 67, No. 55.

Penn Gas Coal Company's R. R., 1875.

Pittsburgh, Fort Wayne and Chicago R. R., 1874. See 60, No. 56.

Jeffersonville, Madison and Indianapolis R. R., 1877.

Lexington and Big Sandy R. R., See 60, No. 56.

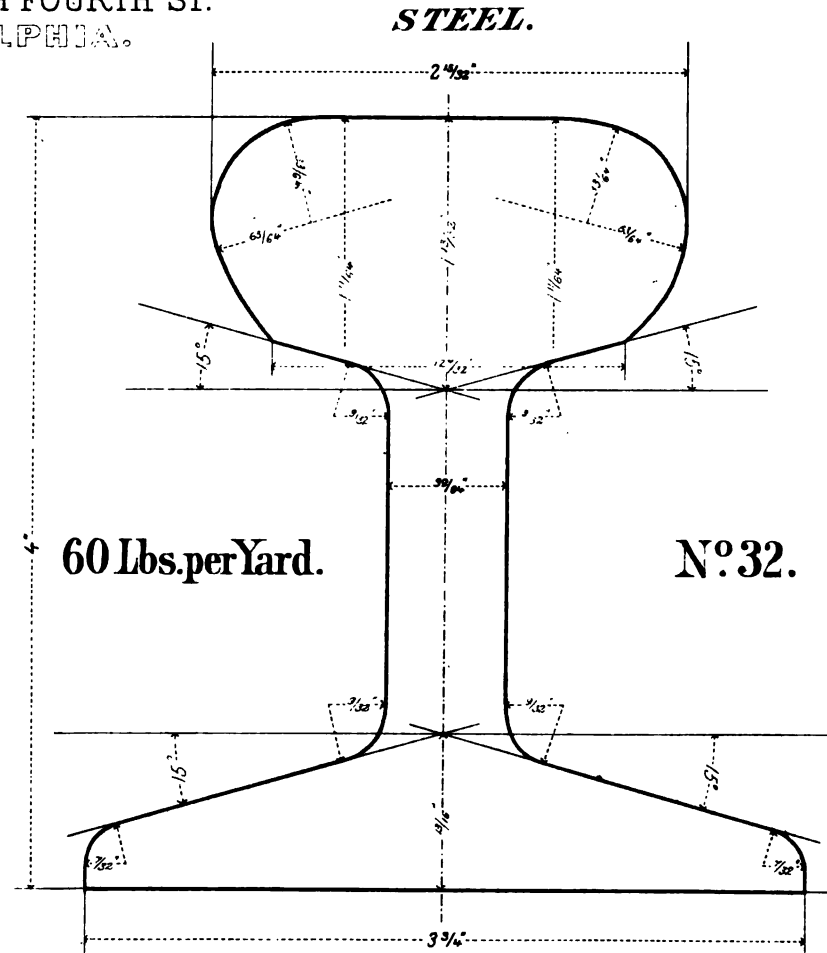
St. Louis and Iron Mountain R. R., 1873. See 60, No. 56.

(Changed to St. L., I. M. & S. R. R.)

Buffalo, New York and Philadelphia R. R., 1880-83.

Oil Creek and Allegheny River Ry., 1875. Also 60, No. 9.

Youghiogheny R. R., 1877.



~~94.111~~ GROSS TONS TO THE MILE.

~~105.111~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **38**

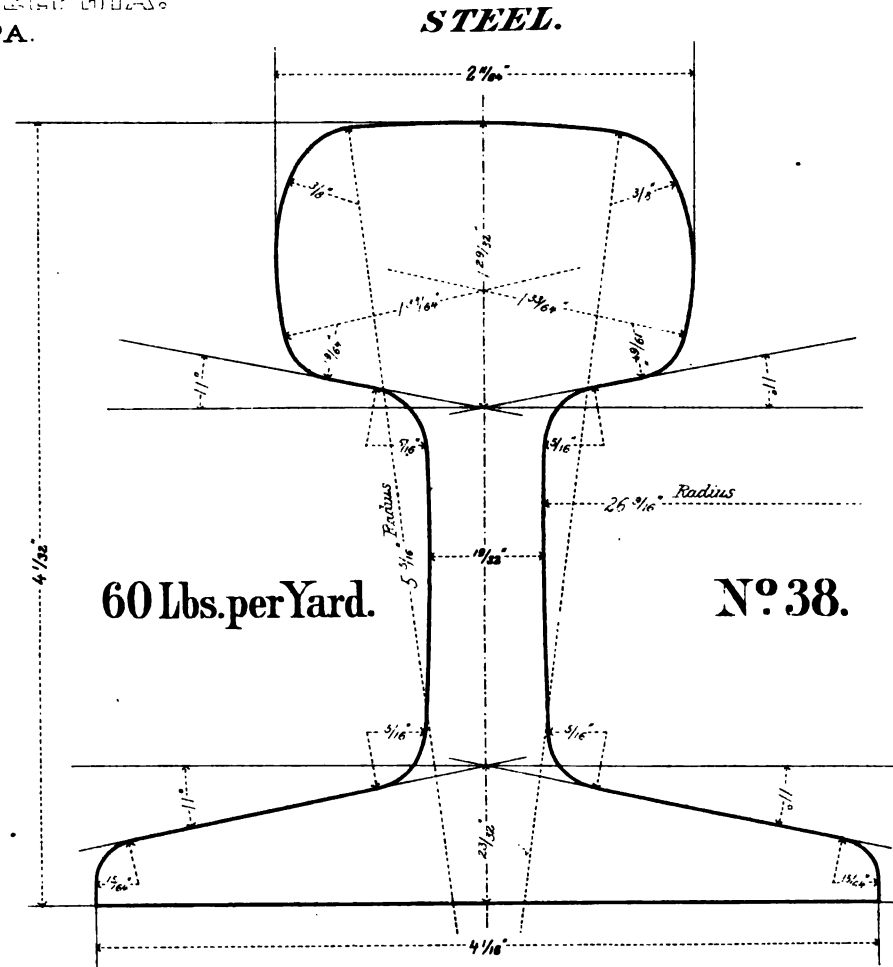
60 LBS. No. 38.

Chesapeake and Ohio R. R., 1872. See 60, No. 60.

Boston and Providence R. R., 1874.

Virginia and Truckee R. R., 1874.

Buffalo and Jamestown R. R., 1876.



~~94.111~~ GROSS TONS TO THE MILE.

~~105.111~~ NET TONS TO THE MILE.



CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **41**

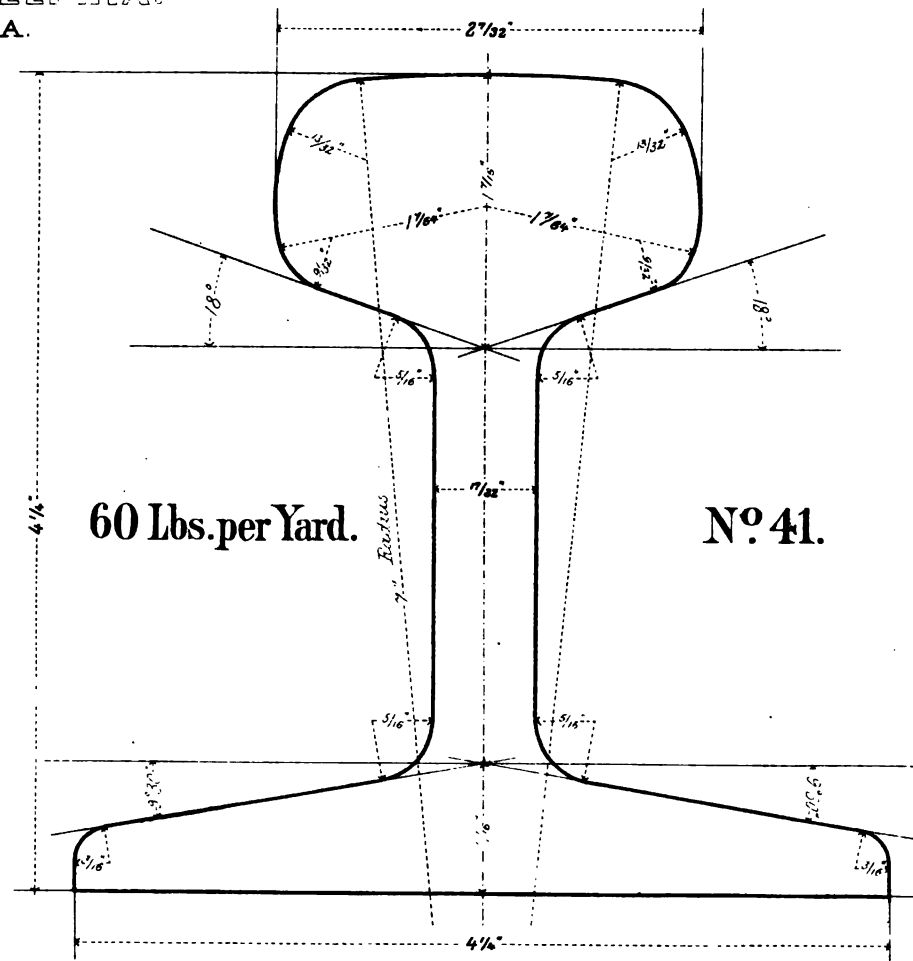
STEEL.

60 LBS. No. 41.

Chicago and Northwestern R. R., 1874. See 60, No. 77.

Central Pacific R. R., 1874. See 50, No. 60.

Keokuk and Des Moines R. R., 1874.



94.111 GROSS TONS TO THE MILE.
105.111 NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **49**

60 LBS. No. 49.

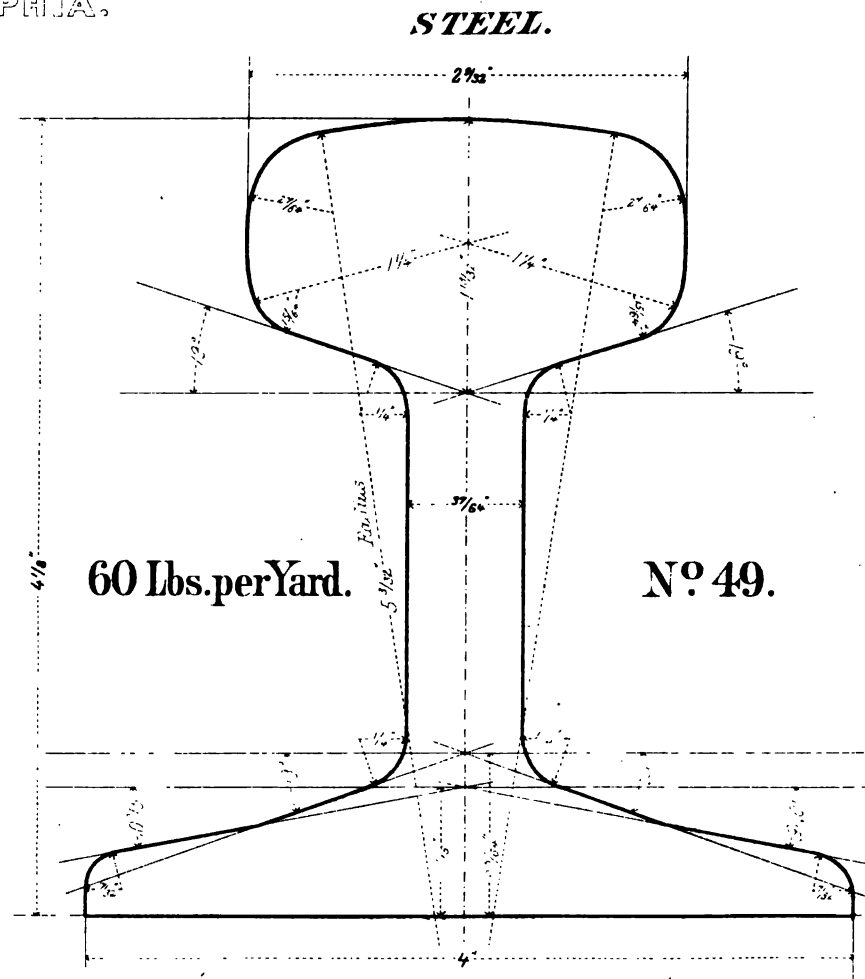
Illinois Central R. R., 1877. See 60, No. 56.

Cincinnati, Hamilton and Dayton R. R., 1875.

See 60, No. 59.

St. Louis, Alton & Terre Haute R. R., 1876. See 60, No. 56.

Grand Rapids and Indiana R. R., 1875-76. See 56, No. 73.



~~94~~¹¹⁰ GROSS TONS TO THE MILE.

~~105~~¹¹⁰ NET TONS TO THE MILE.

GAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

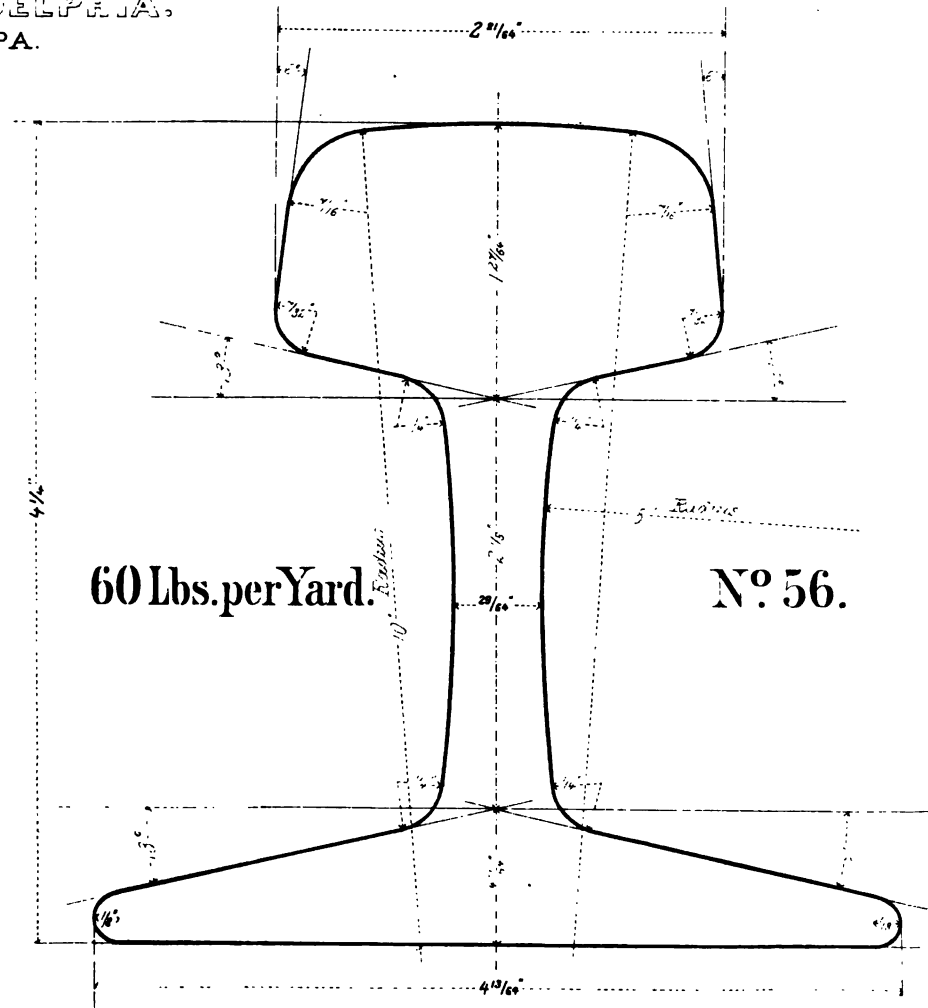
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **60**
No. **56**

60 LBS. No. 56.

<i>Ohio and Mississippi R. R., 1881—84.</i>	<i>West Jersey R. R., 1880.</i>
<i>A. Iselin & Co., 1884.</i>	<i>Illinois Central R. R., 1877.</i>
<i>Henry Bayard & Co., 1884.</i>	<i>Springfield Southern R. R., 1881.</i>
<i>Campbell's Creek Coal Co., 1884.</i>	<i>Baltimore and Potomac R. R., 1876.</i>
<i>Allegheny Valley R. R., 1879.</i>	<i>Iron Railway Co., 1884.</i>
<i>Cleveland and Pittsburgh R. R., 1877.</i>	<i>Midland Construction Co., 1883—84.</i>
<i>Northern Central Ry., (Penna.) 1877.</i>	<i>Delaware River R. R., 1882—83.</i>
<i>Bellefonte and Snow Shoe R. R., 1880.</i>	<i>Pennsylvania Co., 1883.</i>
<i>Erie and Pittsburgh R. R., 1878.</i>	<i>Western Maryland R. R., 1882.</i>
<i>Summit Branch R. R., 1876.</i>	<i>Cincinnati Southern Ry., 1882.</i>
<i>Philadelphia and Erie R. R., 1879.</i>	<i>Kentucky Central Ry., 1881.</i>
<i>Toledo and Woodville R. R., 1877.</i>	<i>Bowers, Brown & Co., 1882.</i>
<i>New York, Philadelphia and Norfolk R. R., 1884.</i>	
<i>Pennsylvania R. R., (Leased Lines and Branches,) 1881—83—84. See 70, No. 125.</i>	
<i>Pittsburgh, Ft. Wayne and Chicago R. R., 1881. Also 67, No. 55.</i>	
<i>Pittsburgh, Cincinnati and St. Louis R. R., 1881—82.</i>	
<i>Terre Haute and Indianapolis R. R., 1878—83.</i>	
<i>Louisville, Paducah and South Western R. R., 1875.</i>	
<i>Dunleith and Dubuque Bridge Co., 1880—84.</i>	
<i>St. Louis, Alton and Terre Haute R. R., 1879—84.</i>	
<i>Huntingdon and Broad Twp R. R., 1879—82.</i>	
<i>Oumberland and Penna. R. R., 1880—84. Also 56, No. 73.</i>	
<i>St. Louis, Iron Mountain and Southern R. R., 1880—81.</i>	
<i>Baltimore and Ohio R. R., 1881—82—83. Also 67, No. 55.</i>	
<i>Rochester and Pittsburgh R. R., 1881—84.</i>	
<i>Cincinnati Northwestern R. R., 1884.</i>	
<i>Lonias Forger Bridge Co., 1882.</i>	



94.440 GROSS TONS TO THE MILE.
105.122 NET TONS TO THE MILE.

AMERICA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. 60
No. 59

60 LBS. No. 39.

Fitchburg R. R., 1875.

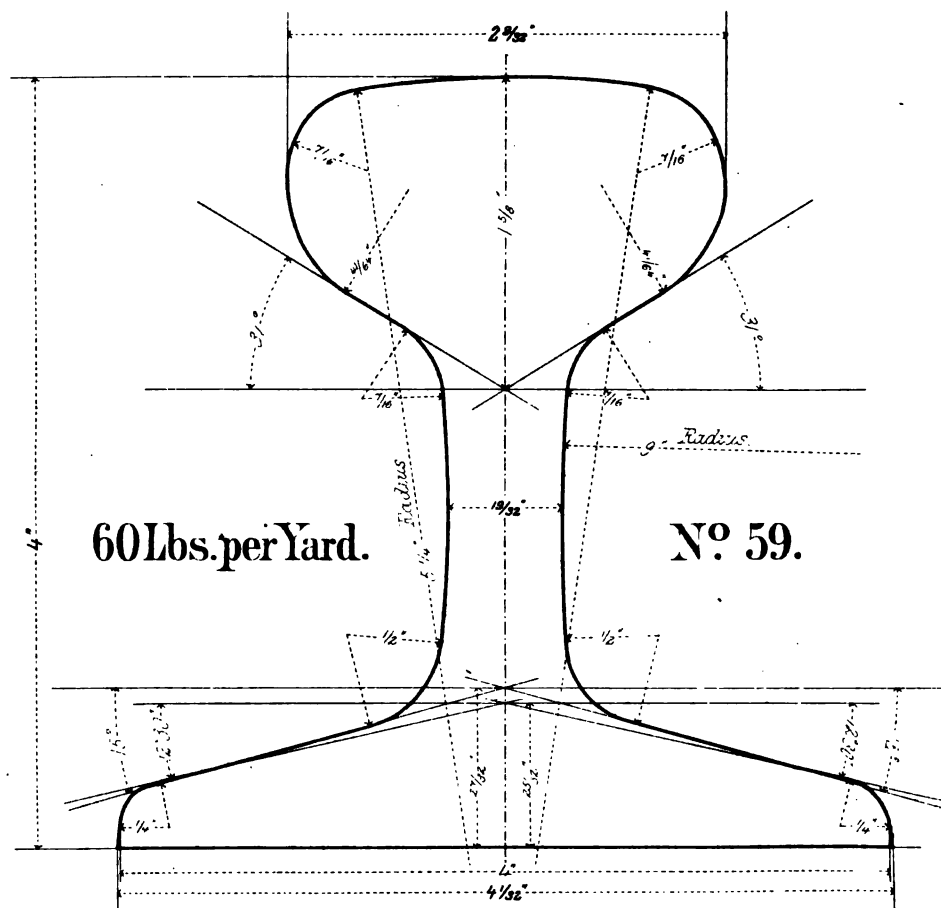
Cheshire R. R., 1875.

Boston, Lowell and Nashua R. R., 1875-76.

See 60, No. 32.

Cincinnati, Hamilton and Dayton R. R., 1878.

STEEL.



94⁶⁴⁰/₁₁₁₀ GROSS TONS TO THE MILE.

105~~1100~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

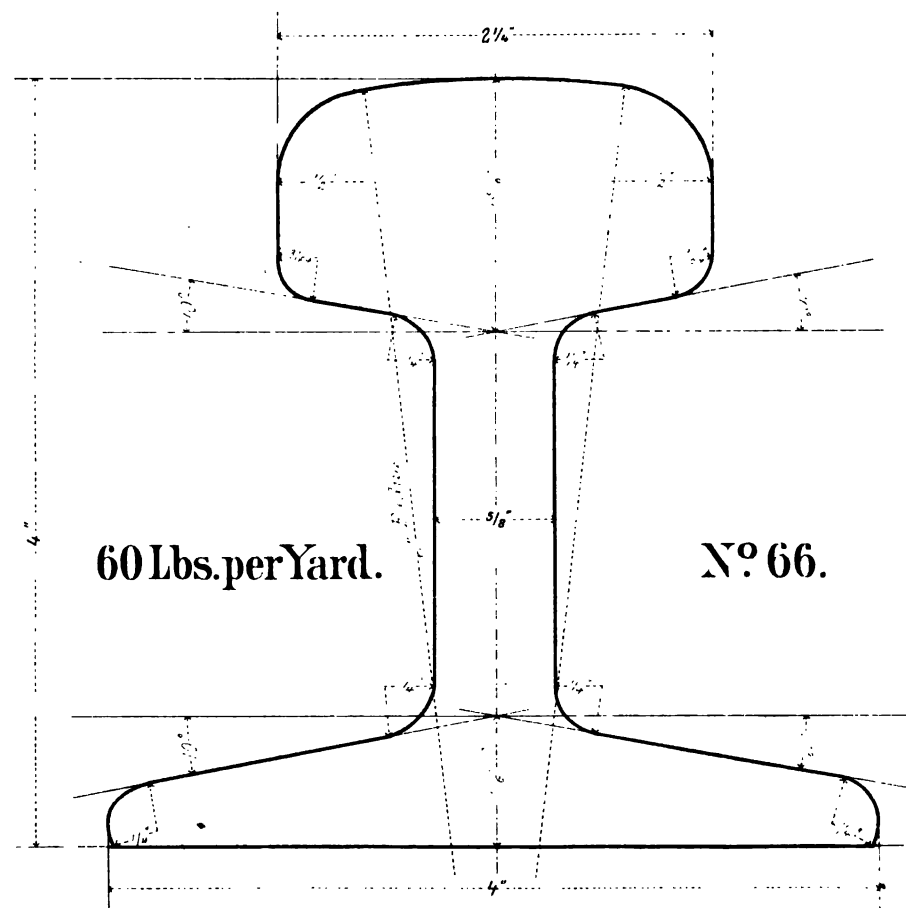
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **66**

STEEL.

60 LBS. No. 66.

Maine Central R. R.. 1878.



~~94.111~~ **94.111** GROSS TONS TO THE MILE.
~~105.111~~ **105.111** NET TONS TO THE MILE.



PAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

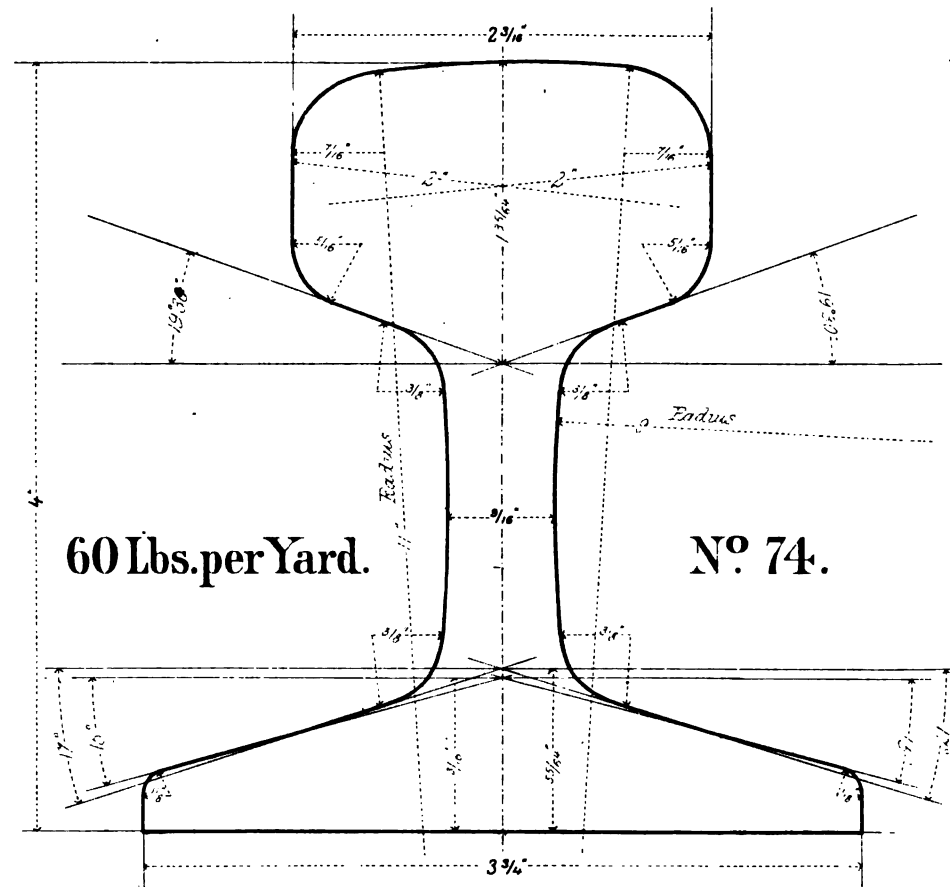
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **74**

STEEL.

60 LBS. No. 74.

Chicago, Milwaukee and St. Paul Ry., 1877.



~~94.111~~ GROSS TONS TO THE MILE.

~~105.111~~ NET TONS TO THE MILE.

CAMERIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

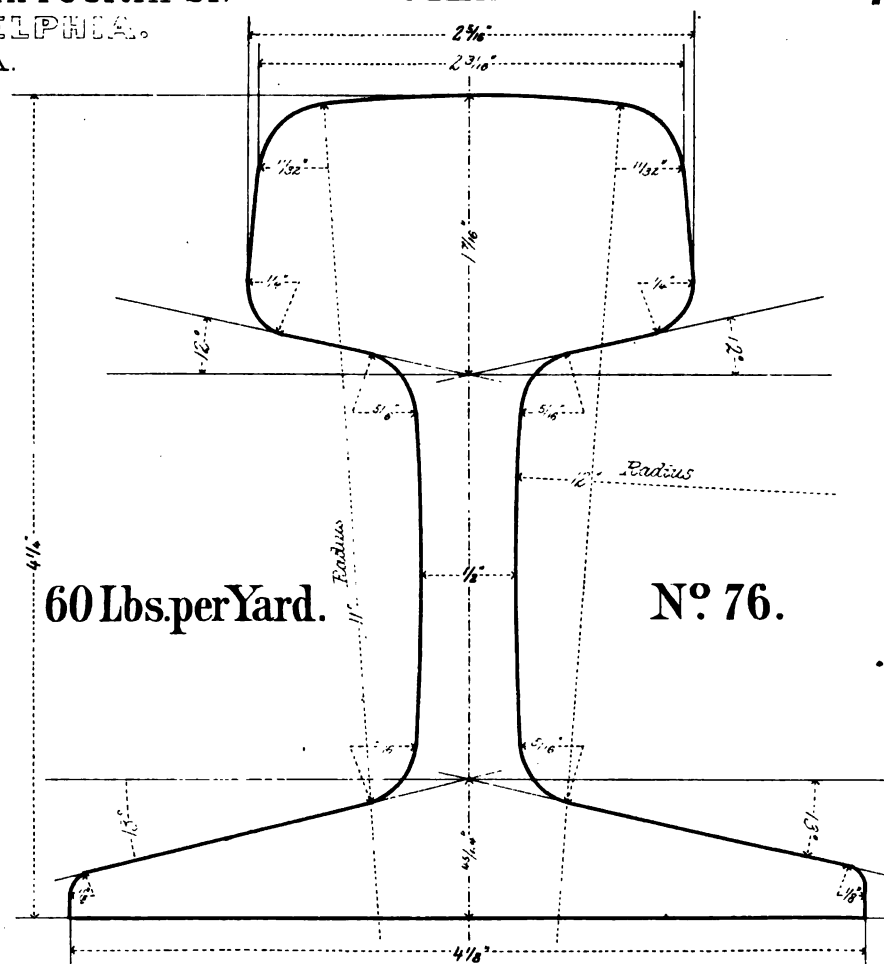
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **60**
No. **76**

60 LBS. No. 76.

Lake Shore and Michigan Southern Ry., 1877.



94.111 GROSS TONS TO THE MILE.

105.111 NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

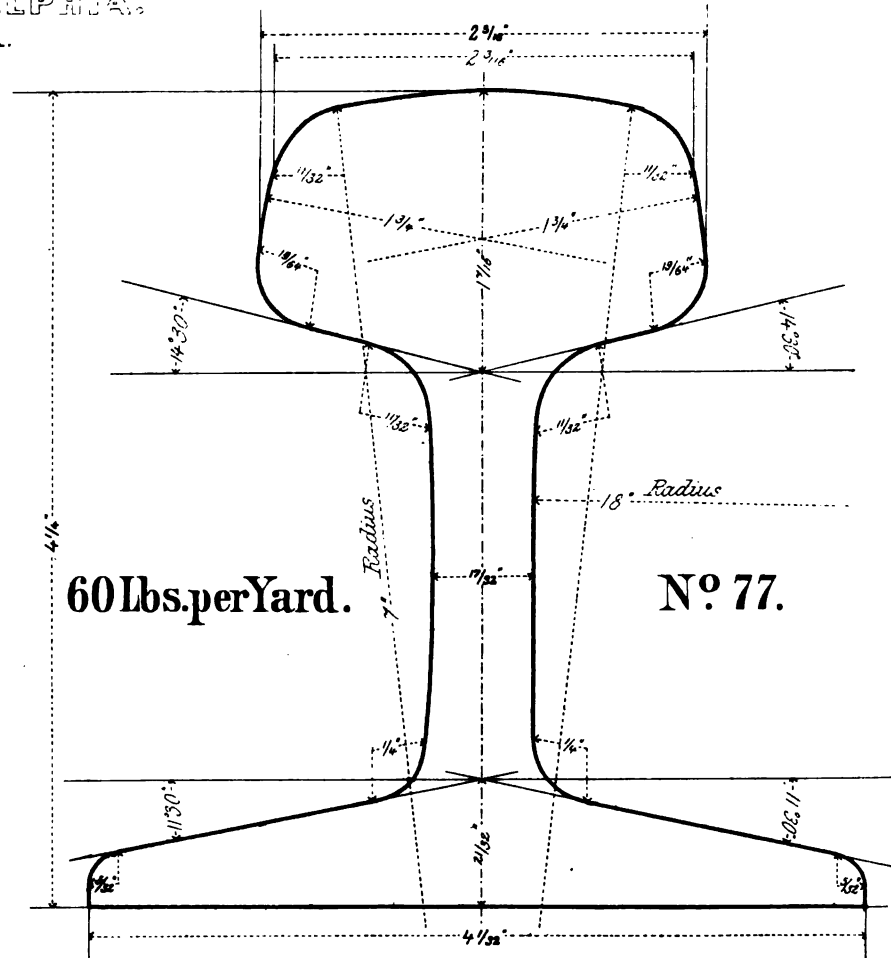
Wt. **60**
No. **77**

STEEL.

60 LBS. No. 77.

Chicago and Northwestern Ry., 1879.

Bellefonte and Snow Shoe R. R., 1879. See 60, No. 56.



60lbs.perYard.

Nº 77.

94.111 GROSS TONS TO THE MILE.

105.111 NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

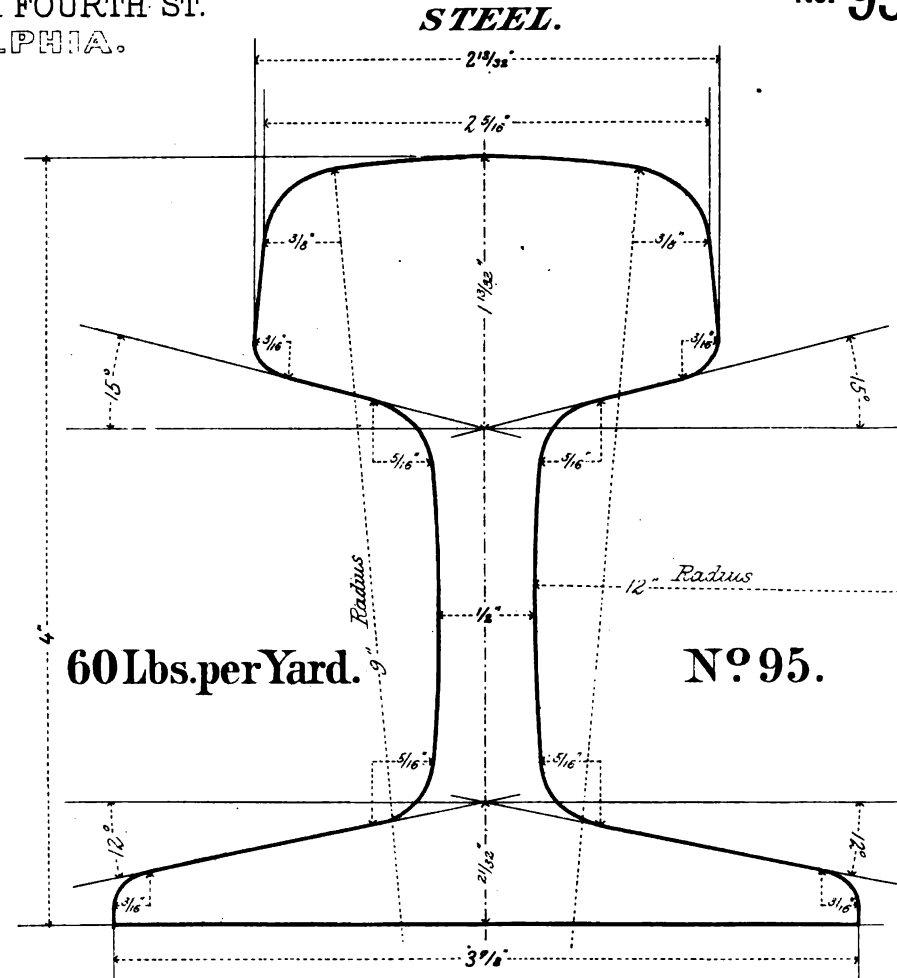
Wt. **60**
No. **95**

60 LBS. No. 95.

Ind., Bloomington and West'n R. R., 1882.

Dayton and Ironton R. R., 1885.

Ohio Southern R. R., 1882.



~~94.444~~ GROSS TONS TO THE MILE.

~~105.111~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **60**
No. **99**

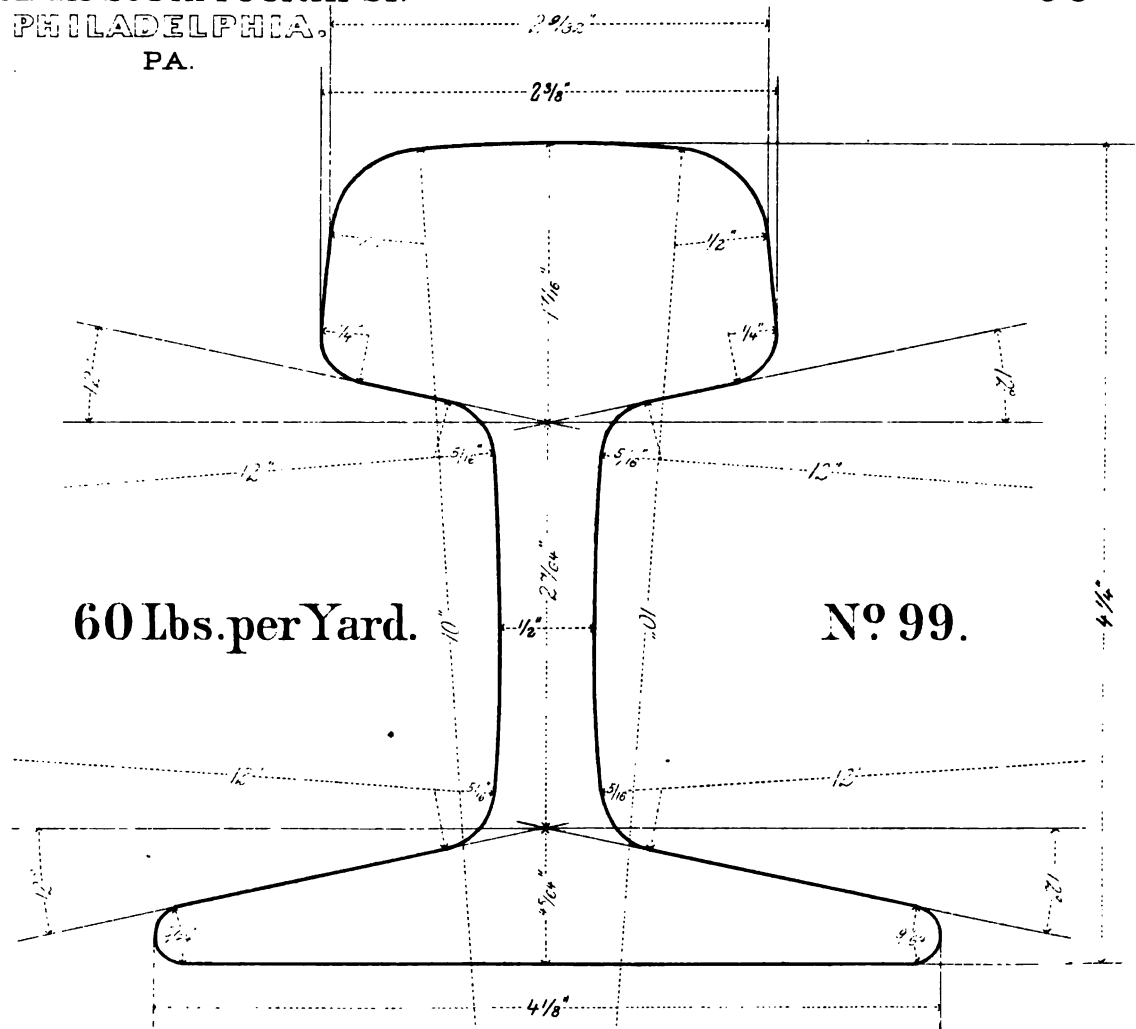
60 LBS. No. 99.

Cin., New Orleans and Texas Pacific R. R., 1883.

Alabama and Great Southern, 1883-84.

Iron Railway Co., 1884.

Vicksburg, Shreveport and Pacific Ry., 1884.



94.440 GROSS TONS TO THE MILE.

105.111 NET TONS TO THE MILE.

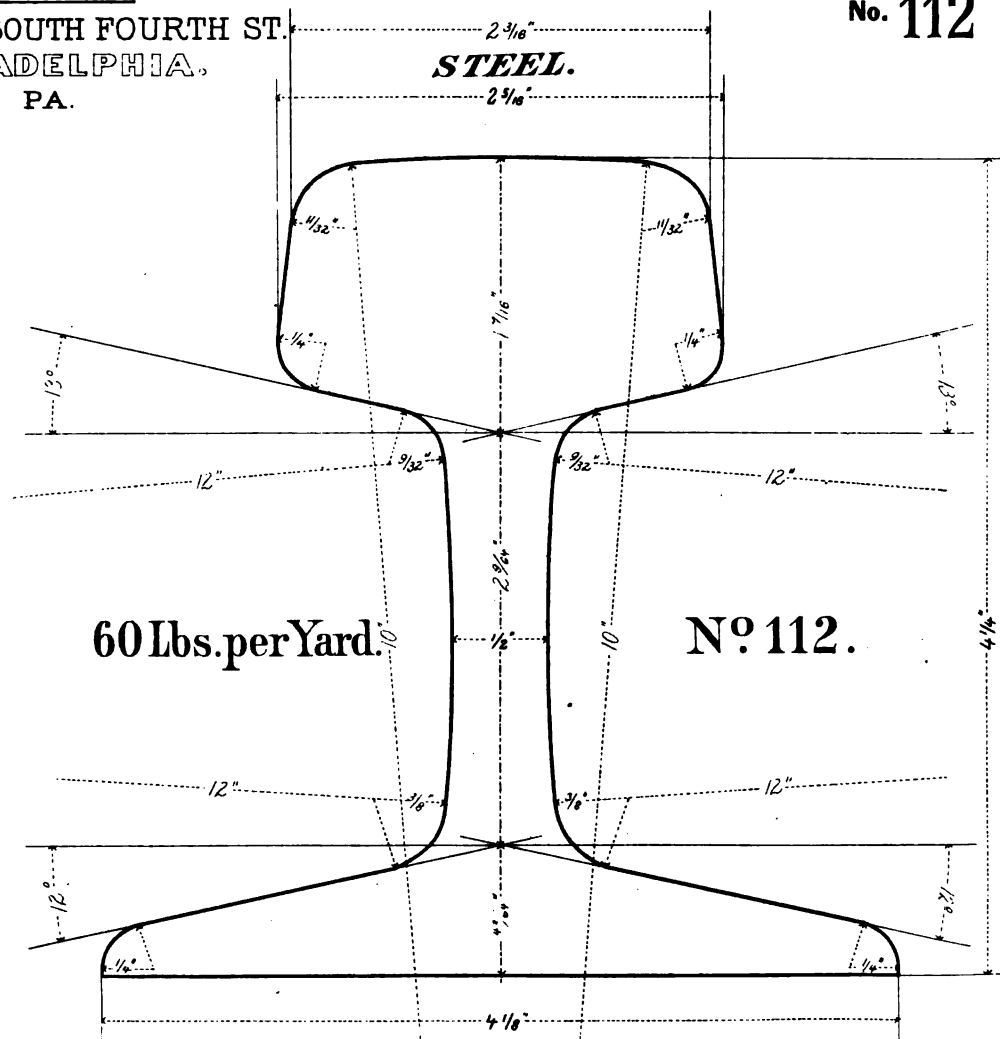
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

Wt. 60
No. 112

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

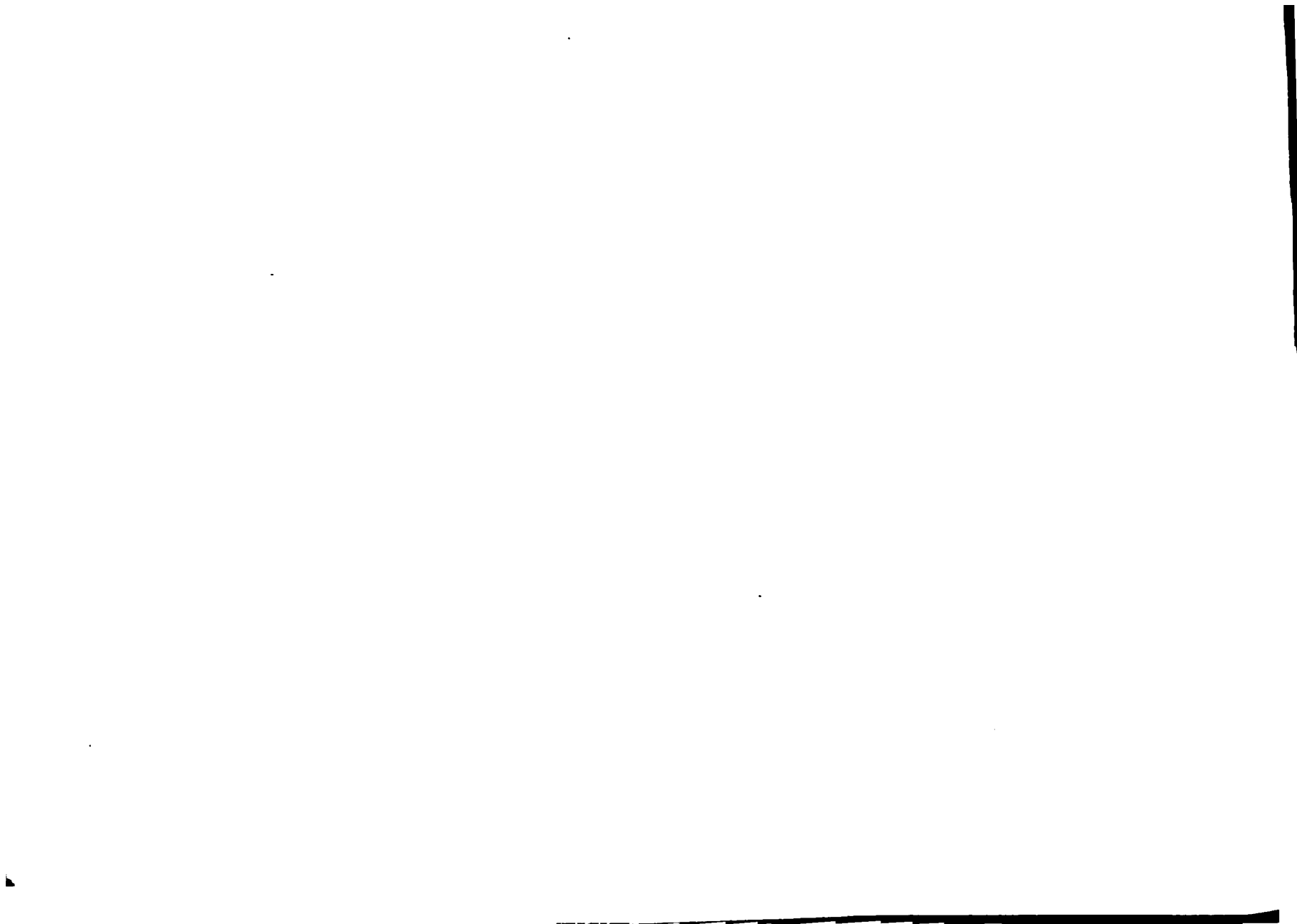
60 LBS. No. 112.

Chicago and North Western Ry., Co., 1883-84.



~~94.140~~ ⁸⁴⁰ GROSS TONS TO THE MILE.

105422 NET TONS TO THE MILE.



CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **113**

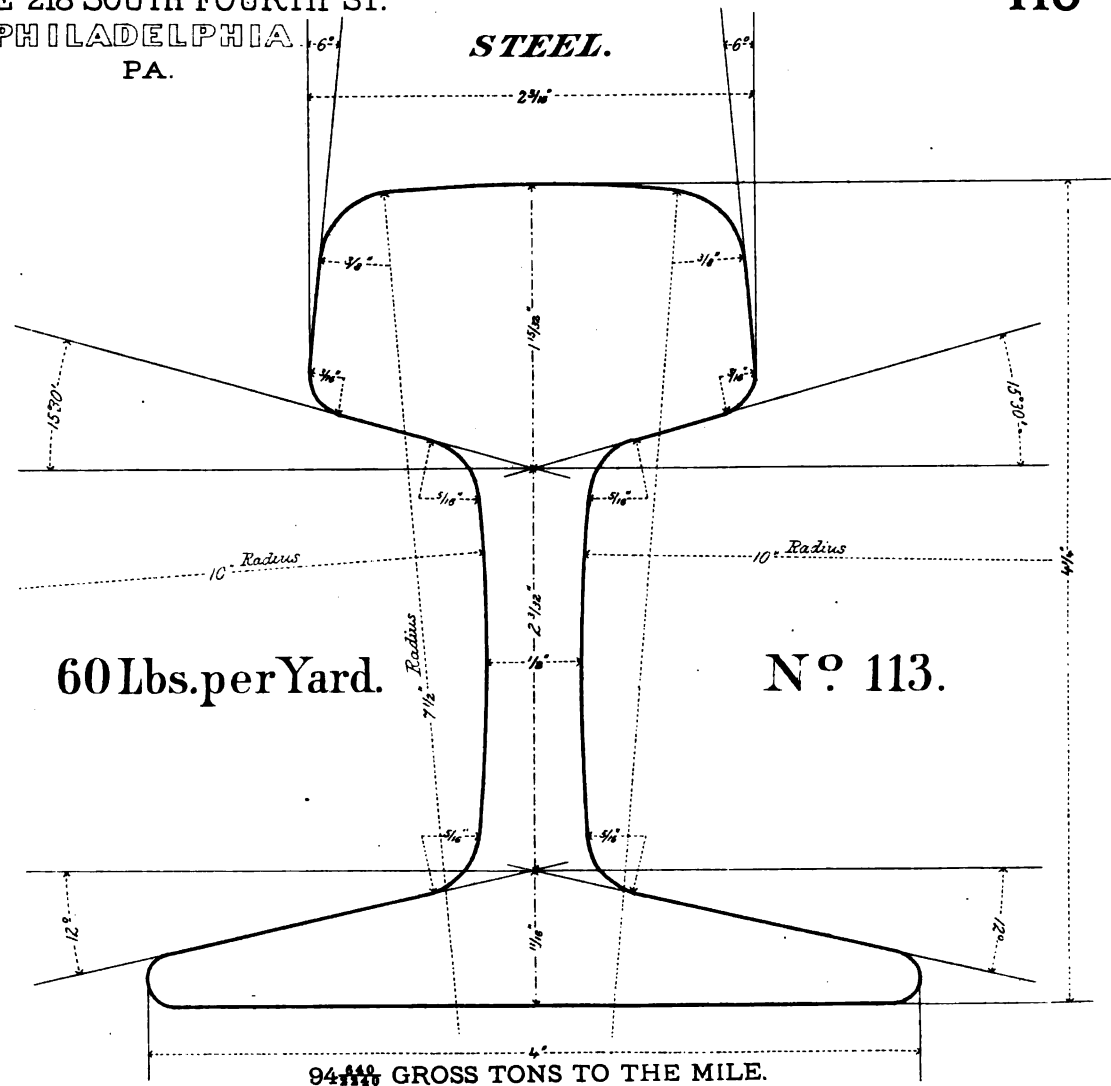
60 LBS. No 113.

Illinois Central R. R. Co., 1883.

St. Louis Coal Ry. Co., 1885.

Ashland Coal and Iron Ry., 1885.

Chicago, Rock Island and Pacific R. R., 1884.



1.

2.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

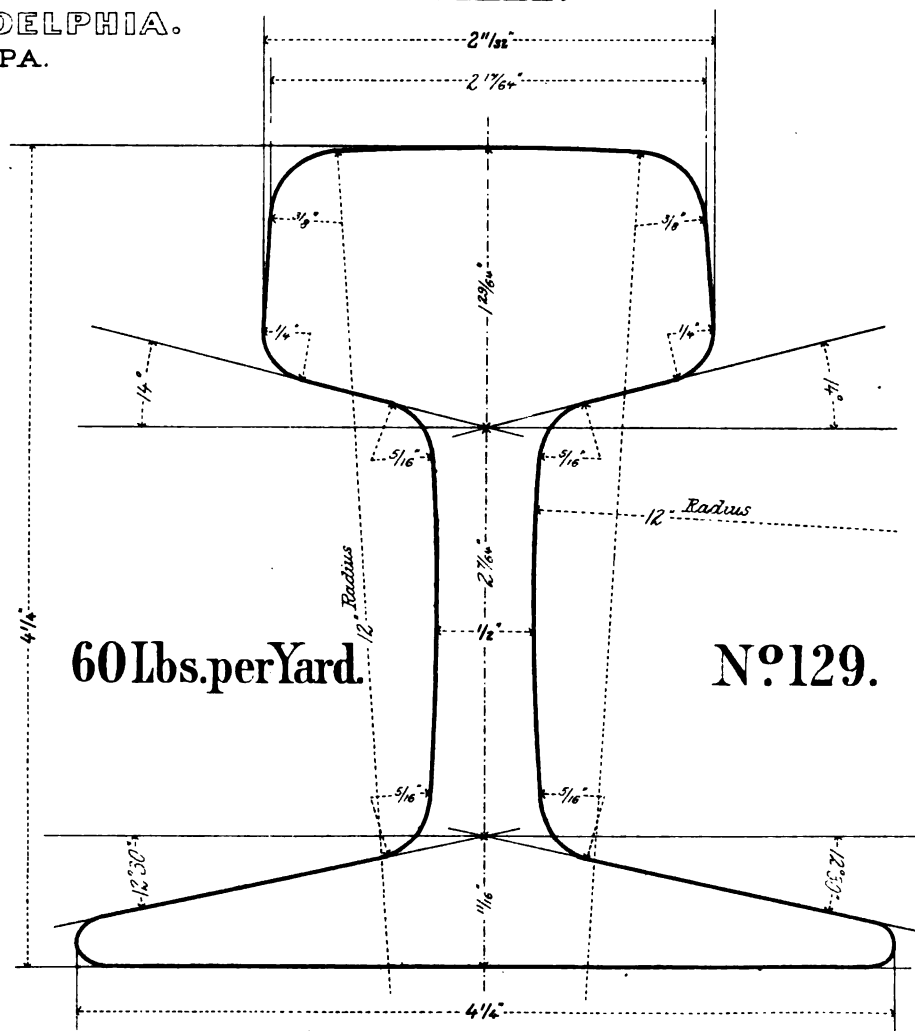
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

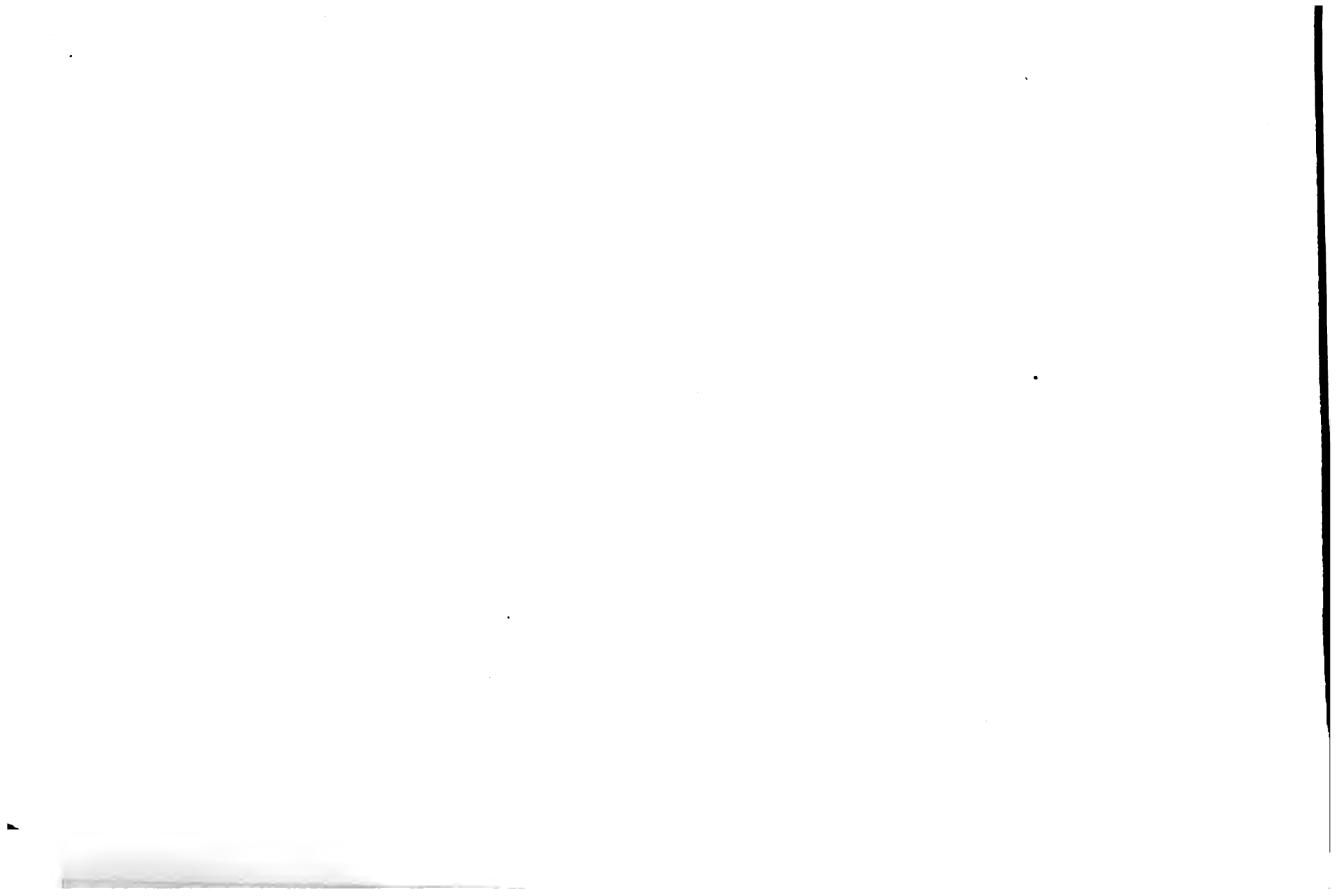
Wt. **60**
No. **129**

60 LBS. No. 129.

Cincinnati, Hamilton and Dayton R. R., 1885.



94,440 GROSS TONS TO THE MILE.



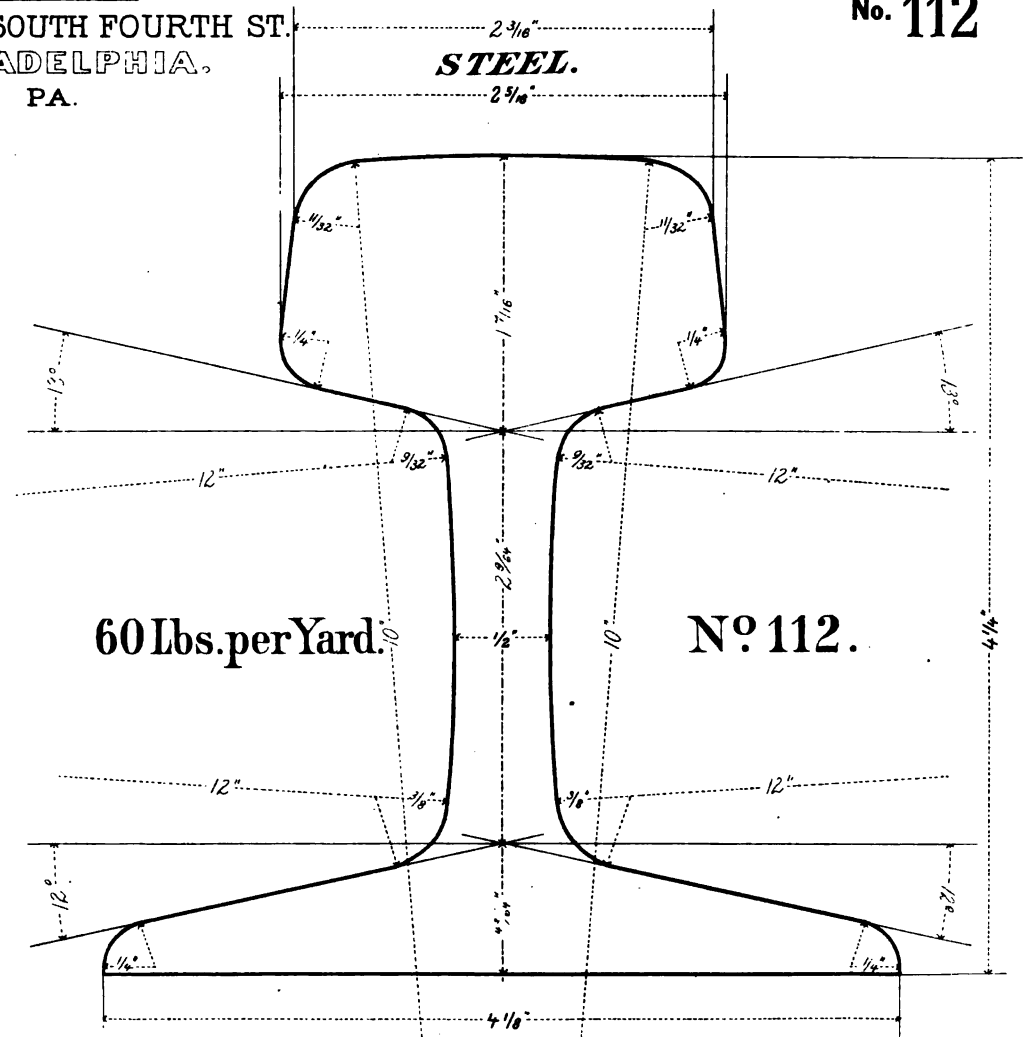
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **60**
No. **112**

60 LBS. No. 112.

Chicago and North Western Ry., Co., 1883-84.



94.111 GROSS TONS TO THE MILE.

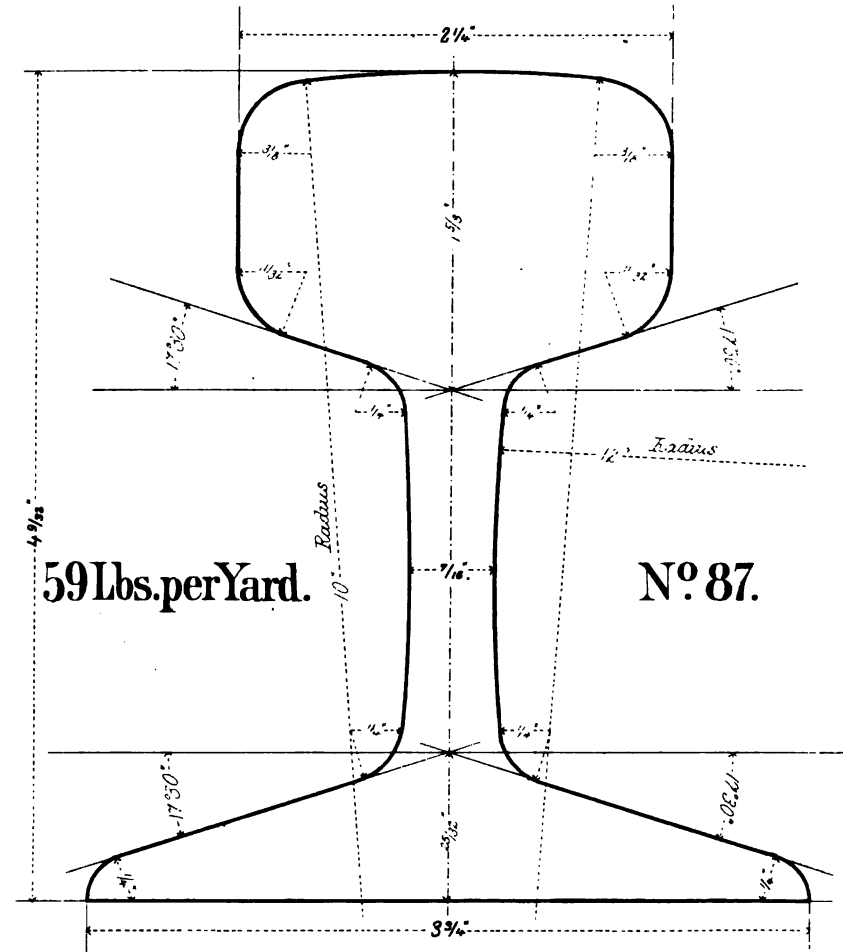
105.111 NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

wt. **59**
No. **87**

STEEL.



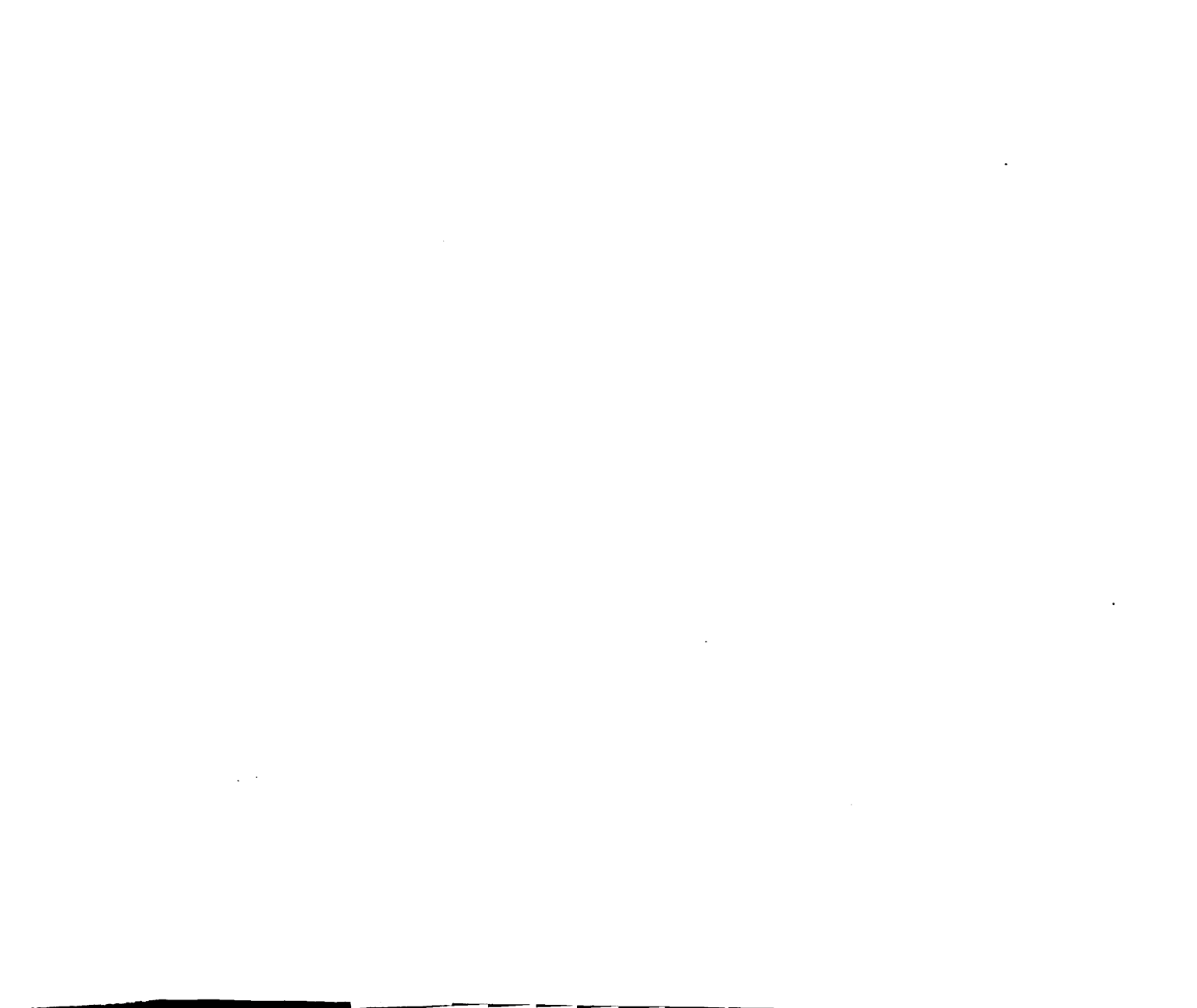
59 LBS. No. 87.

Wabash Ry., 1879.

Cincinnati, Hamilton and Dayton R. R., 1879.

92~~1111~~ GROSS TONS TO THE MILE.

103~~1111~~ NET TONS TO THE MILE.



CAMBERIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **58²⁵**
No. **42**

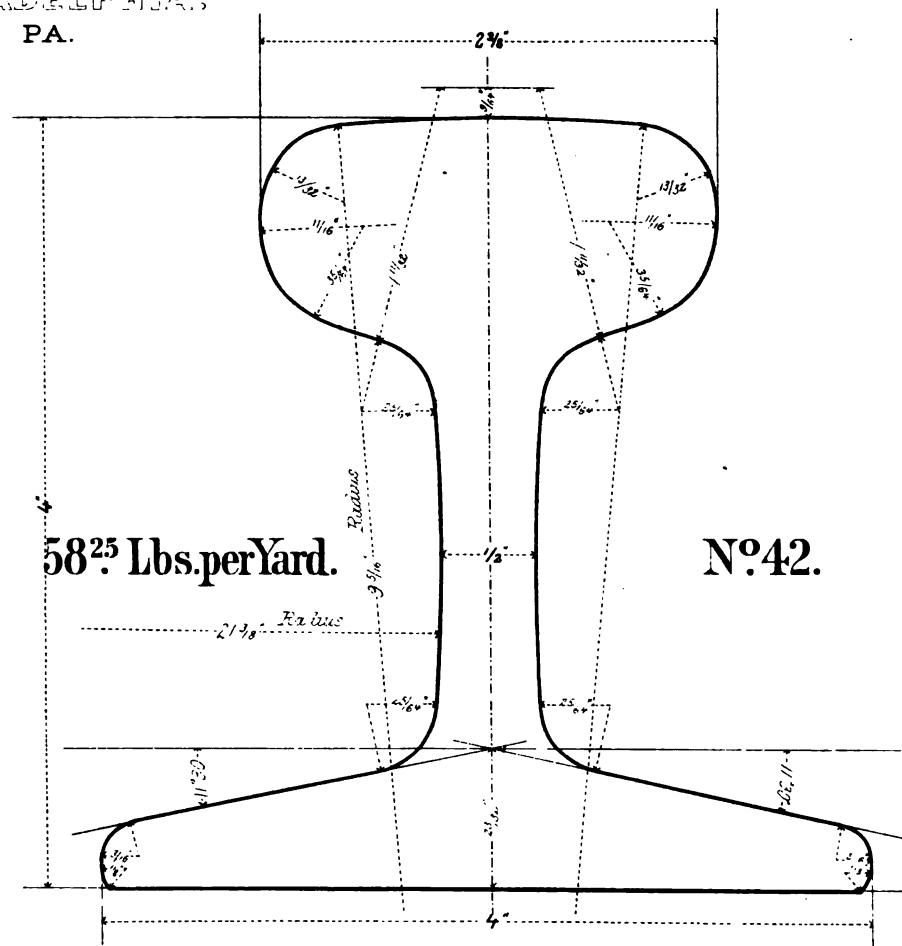
STEEL.

58.25 LBS. No 42.

Chicago, Rock Island and Pacific R. R., 1873.

Philadelphia, Wilmington and Baltimore R. R., 1875.

Also 58, No. 54.



~~911111~~ GROSS TONS TO THE MILE.

~~1021111~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **58**
No. **54**

58 LBS No 54.

Louisville and Nashville R. R., 1881-82.

Philadelphia, Wilmington and Baltimore R. R., 1875.

Also 58.25, No. 42.

Western Maryland R. R., 1875.

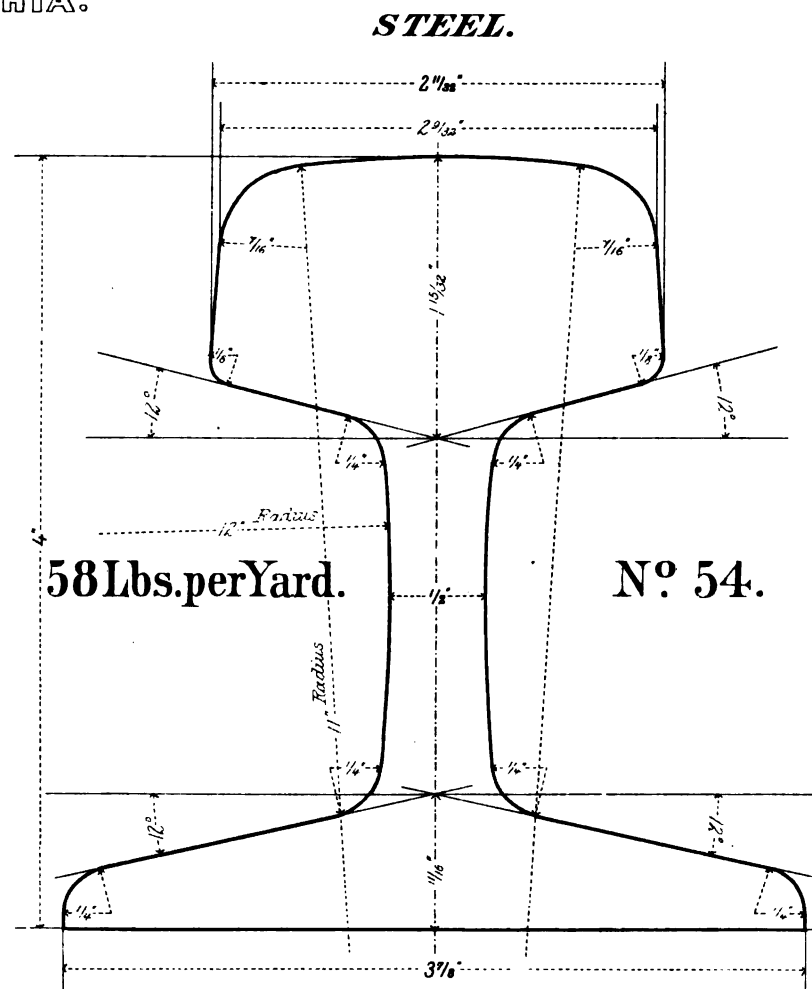
Louisville, Cincinnati and Lexington R. R., 1879-80.

Cincinnati, Hamilton and Dayton R. R., 1879.

See 60, No. 59.

Cleveland, Mt. Vernon and Columbus R. R., 1879.

Nashville, Chattanooga and St. Louis R. R., 1882-84.



91.111 GROSS TONS TO THE MILE.

102.111 NET TONS TO THE MILE.

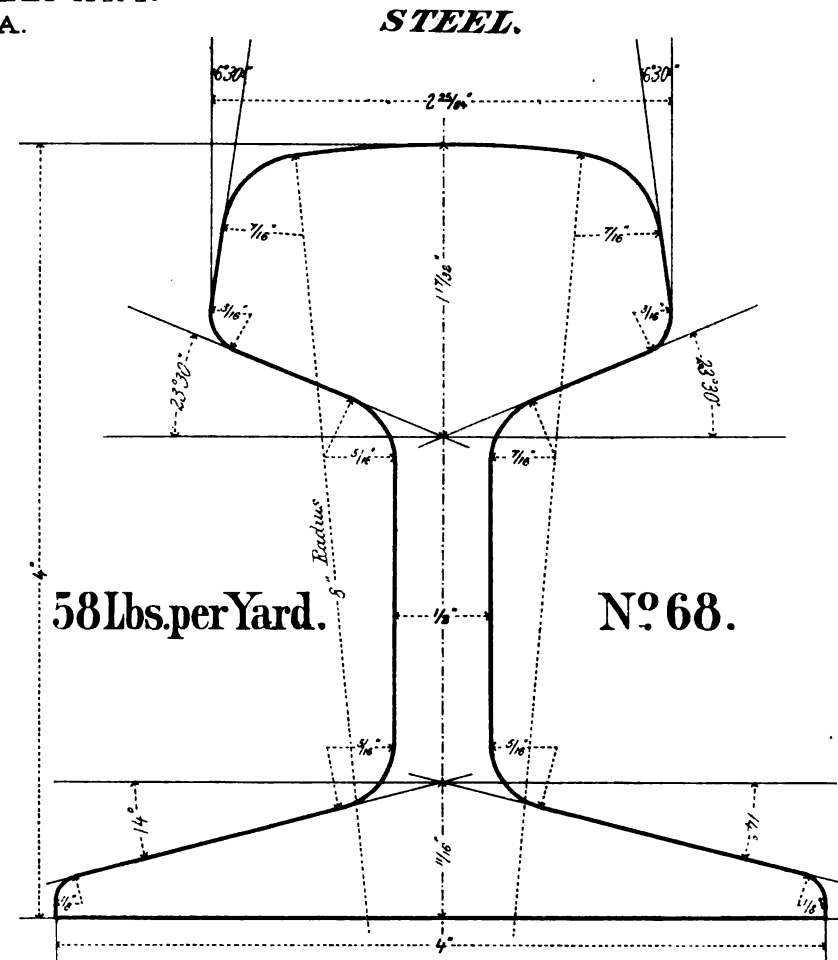
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **58**
No. **68**

58 LBS. No 68.

Lehigh Valley R. R., 1876.



91.111 GROSS TONS TO THE MILE.

102.166 NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.

PA.

Wt. **56**
No. **52**

56 LBS. No 52.

Cumberland Valley R. R., 1877.

Old Colony R. R., 1875. See 56, No. 63.

Pennsylvania R. R., 1875. See 67, No. 55.

Northern (N. H.) R. R., 1875. See 56, No. 63.

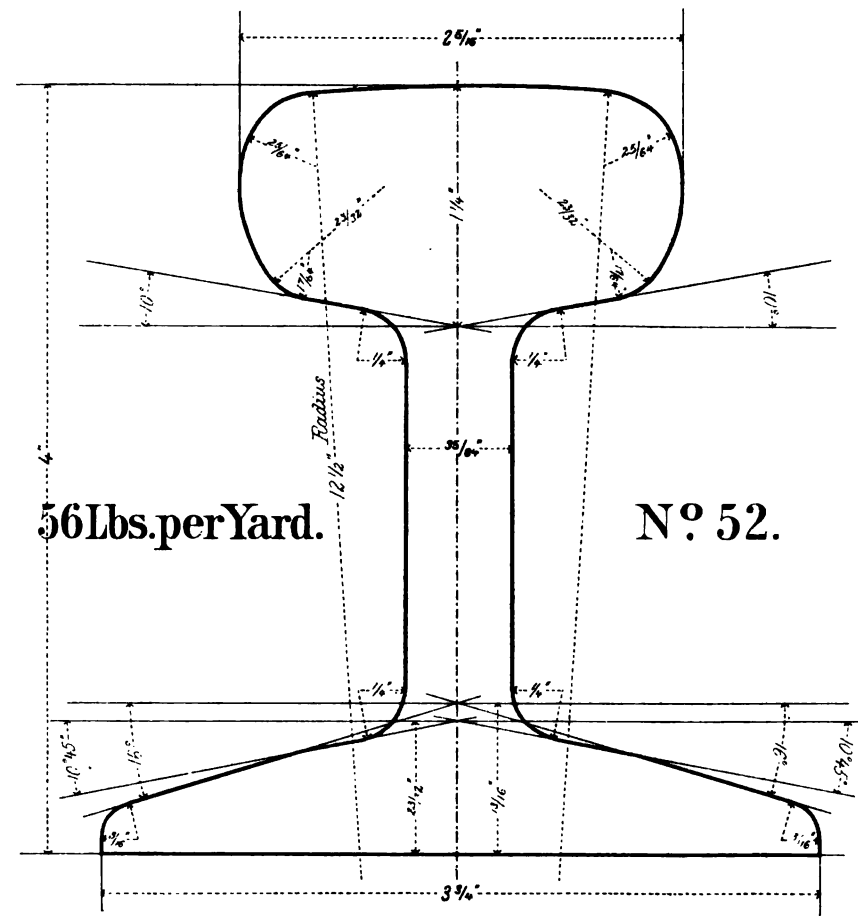
West Chester and Philadelphia R. R., 1876.

First Division St. Paul and Pacific R. R., 1876-77.

Indianapolis, Cincinnati and Lafayette R. R., 1876.

Mississippi Central R. R., 1877. Also 56, No. 63.

STEEL.



88 GROSS TONS TO THE MILE.

98 ~~144~~ NET TONS TO THE MILE.

GAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **56**
No. **63**

56 LBS. No. 63.

Mexican Central R. R., 1881.

New Orleans, Jackson and Northern R. R., 1877.

Springfield and New London R. R., 1876.

Old Colony R. R., 1877.

Northern (N. H.) R. R., 1876.

Concord R. R., 1876.

Shenango and Allegheny R. R., 1876.

Mississippi Central R. R., 1877. Also 56, No. 52.

Grand Rapids and Indiana R. R., 1878-79. See 56, No. 73.

*Flint and Pere Marquette R. R., 1879-82-83-84.
Also 35, No. 81.*

Mobile and Montgomery R. R., 1880.

Louisville, New Albany and Chicago R. R., 1881-82.

Chicago, St. Louis and New Orleans R. R., 1878.

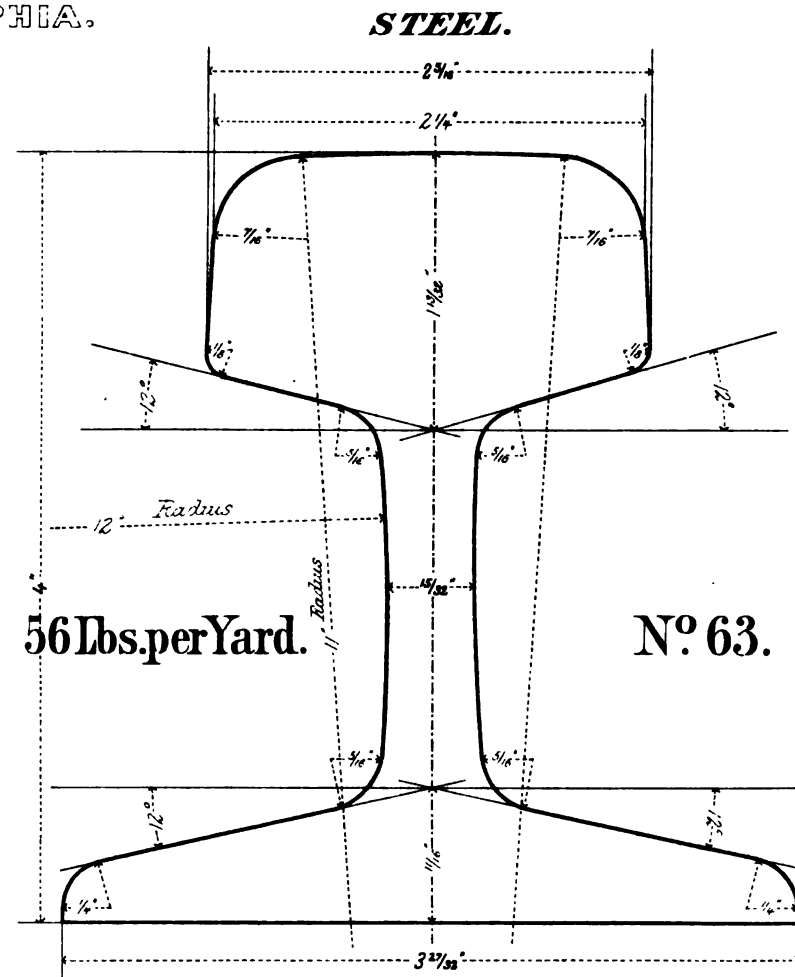
St. Paul, Minneapolis and Manitoba R. R., 1884.

Louisville, New Albany and Chicago R. R. Co., 1883.

Carolina Central R. R., 1883.

Milwaukee and Northern R. R., 1883.

Cincinnati and Eastern R. R., 1883.



88 GROSS TONS TO THE MILE.

98 ~~111~~ NET TONS TO THE MILE.



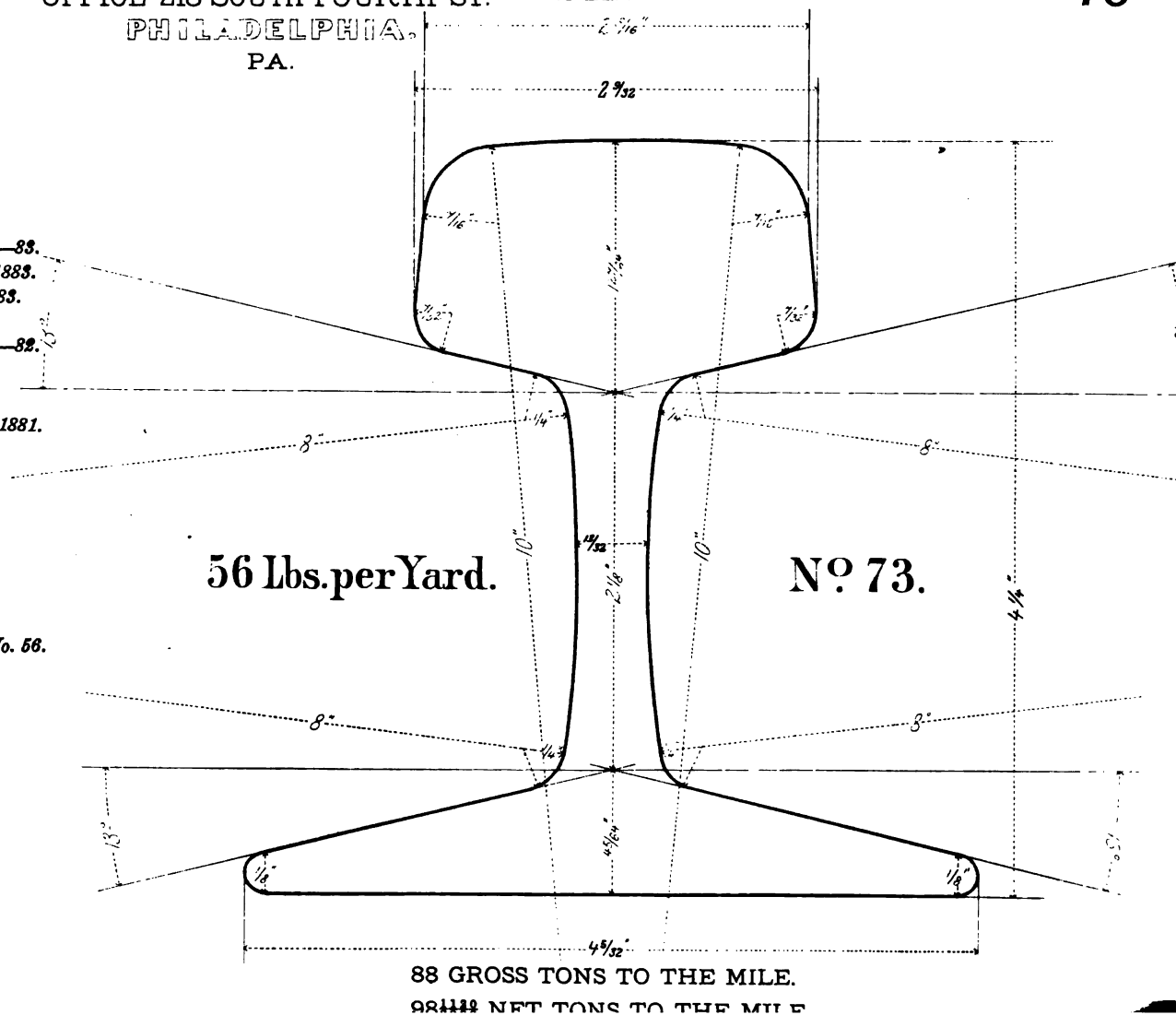
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST. **STEEL.**
PHILADELPHIA.
PA.

Wt. **56**
No. **73**

56 LBS. No. 73.

gonier Valley Ry. Co., 1884.
T. Wilson & Co., 1882—84.
United Coal and Coke Co., 1884.
Louisville B. and I. Co., 1882—83.
Texas and Pacific R. R., 1881—82.
Allegheny R. R., 1879.
Cincinnati N. W. R. R., 1885.
Western and Atlantic R. R., 1881.
Clinton and Pere Marquette R. R., 1884. | Western and Atlantic R. R., 1881.
Buffalo, New York and Philadelphia R. R., 1883.
West Virginia Central and P. R. R., 1884.
Pennsylvania R. R., (Standard 60 lbs., No. 56, reduced,) 1881—83.
Wilmington and Weldon R. R., (W. T. Walters), 1877.
East Tennessee, Virginia and Georgia R. R., (W. T. Walters), 1881.
Western and Atlantic R. R., (W. T. Walters), 1881.
Pennsylvania R. R., for
Grand Rapids and Indiana R. R., 1881—82—83—84.
Lumberland and Penna. R. R., 1879—80. Also 67, No. 55, and 60, No. 56.
European and North American R. R., 1878.
Hanover Junction, Hanover and Gettysburg R. R., 1877—83—84.
Nashville, Chattanooga and St. Louis R. R., 1879. See 52.6, No. 70.
St. Paul, Min. and Manitoba R. R., 1881—82—83—84.
Wilmington and Northern R. R., 1883—84—85.
Mutual Mining and Mfg. Co., 1884.
Free Bay, Winona and St. Paul Street Ry., 1884.
International and Great Northern R. R., 1881—82—83.
St. Louis, Iron Mountain and Southern R. R., 1883.
Mississippi, Kansas and Texas R. R., 1883.
Olean and Salamanca R. R., 1882—83.
Buffalo, Pittsburgh and Western R. R., 1882.





CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. 56
No. 82

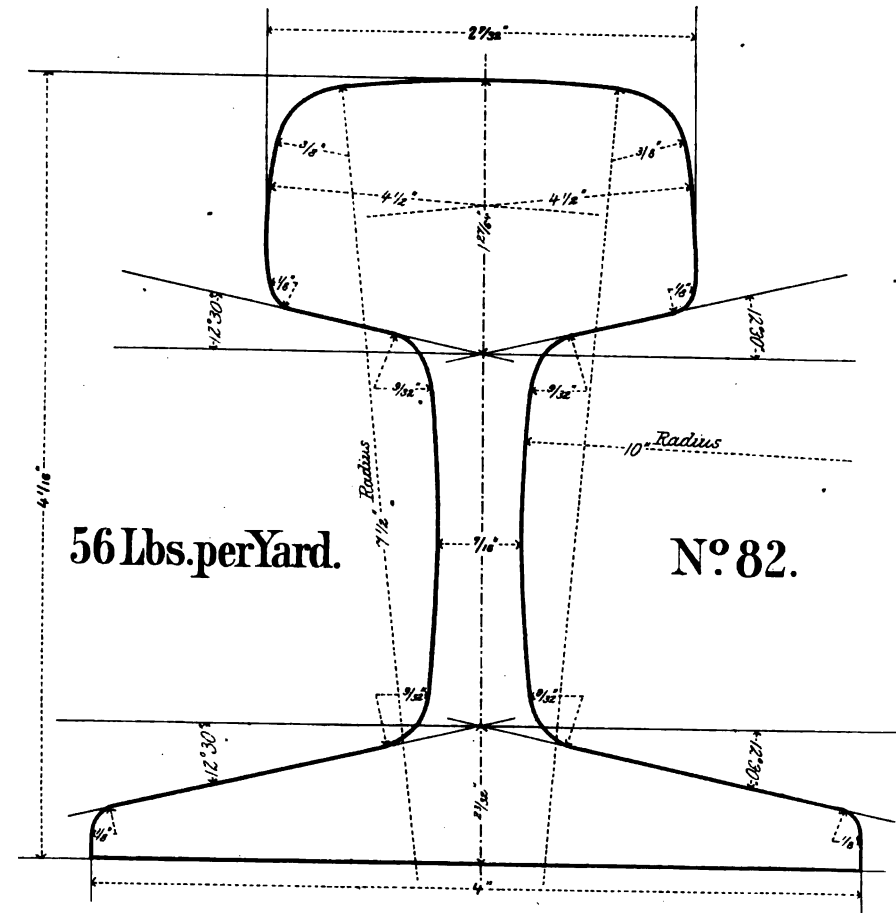
STEEL.

56 LBS. No. 82.

Chicago, Burlington and Quincy R. R.
(Leased Lines and Branches), 1881.

Burlington and Missouri River R. R., 1881.

Fort Scott, South Eastern and Memphis R. R., 1880.



88 GROSS TONS TO THE MILE:
98 1/4 NET TONS TO THE MILE

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **56**
No. **94**

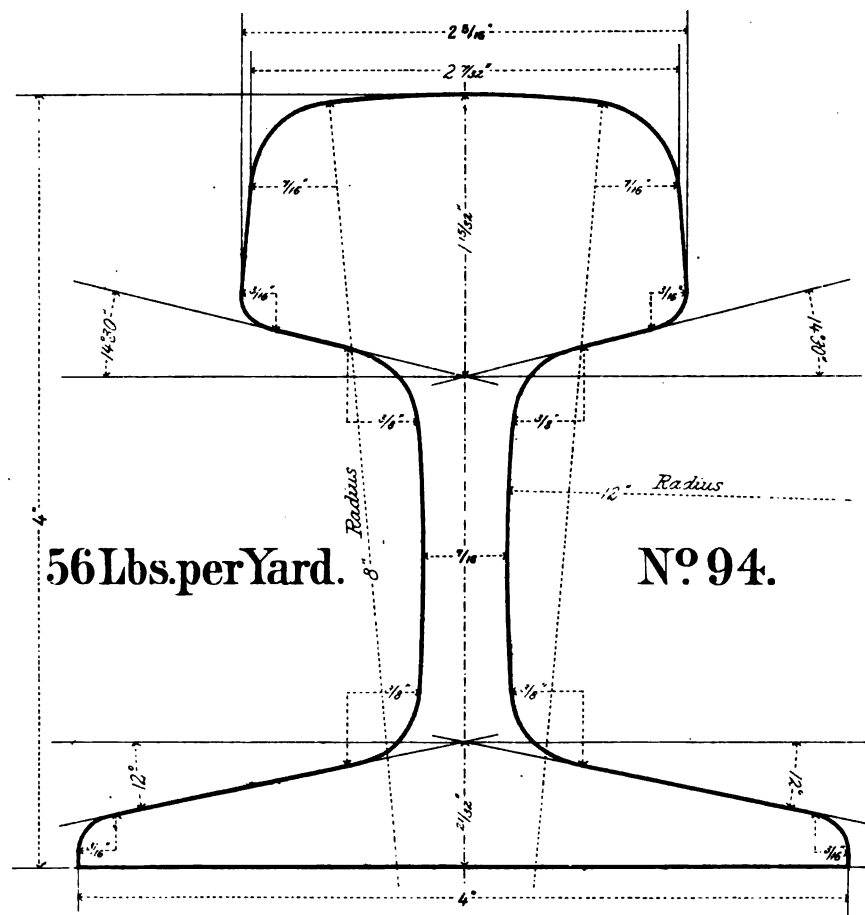
56 LBS. No. 94.

N. Y. New Eng. and West'n Investment Co., 1882-83.

Jacksonville Southeastern R. R., 1883-84.

Silver Lake R. R. Co., 1883.

STEEL.



88 GROSS TONS TO THE MILE.
98 ~~1111~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

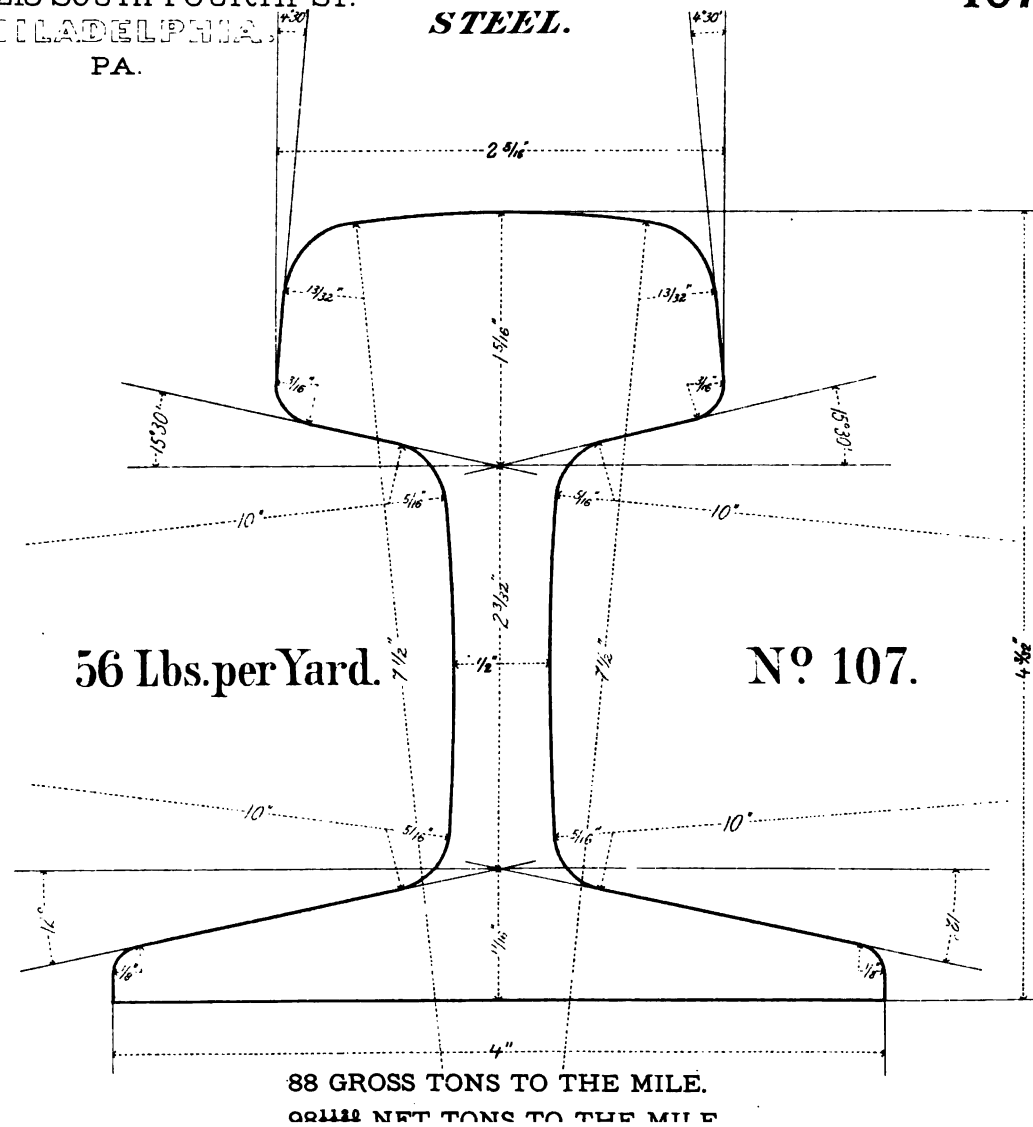
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA,
PA.

Wt. **56**
No. **107**

STEEL.

36 LBS. No. 107.

Illinois Central R. R., 1883.



CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. $52\frac{6}{10}$
No. 70

52.6 LBS. No. 70.

Nashville, Chattanooga and St. Louis R. R., 1880-83-84.

*Missouri, Kansas and Texas Ry. (Rolled down to 52 pounds),
1879.*

Cairo and Vincennes R. R. (Rolled down to 52 pounds), 1879.

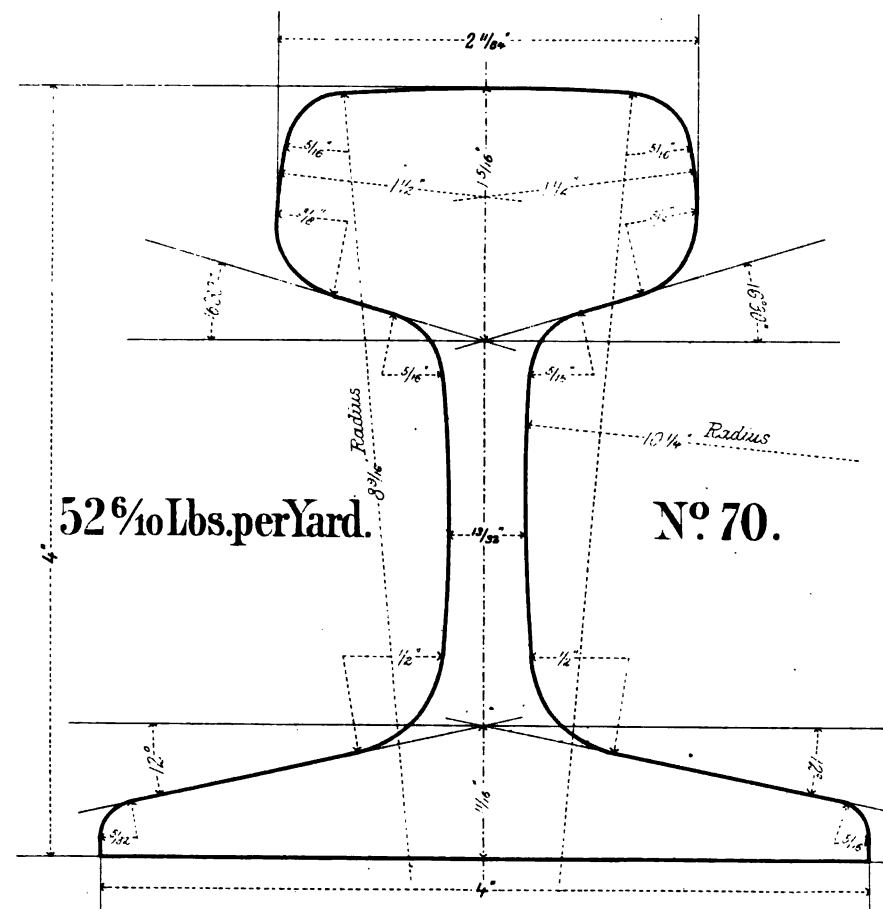
*Grand Rapids, Newaygo and Lake Shore R. R., 1880. (Rolled
down to 52 lbs., and 52.5 lbs).*

Miller, Thomas & Co., 1879. (Rolled down to 52.5 lbs).

Union Depot Co., 1881.

Mississippi and Tennessee R. R., 1881.

STEEL.



82 ~~111~~ GROSS TONS TO THE MILE.
92 ~~111~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **52**
No. **109**

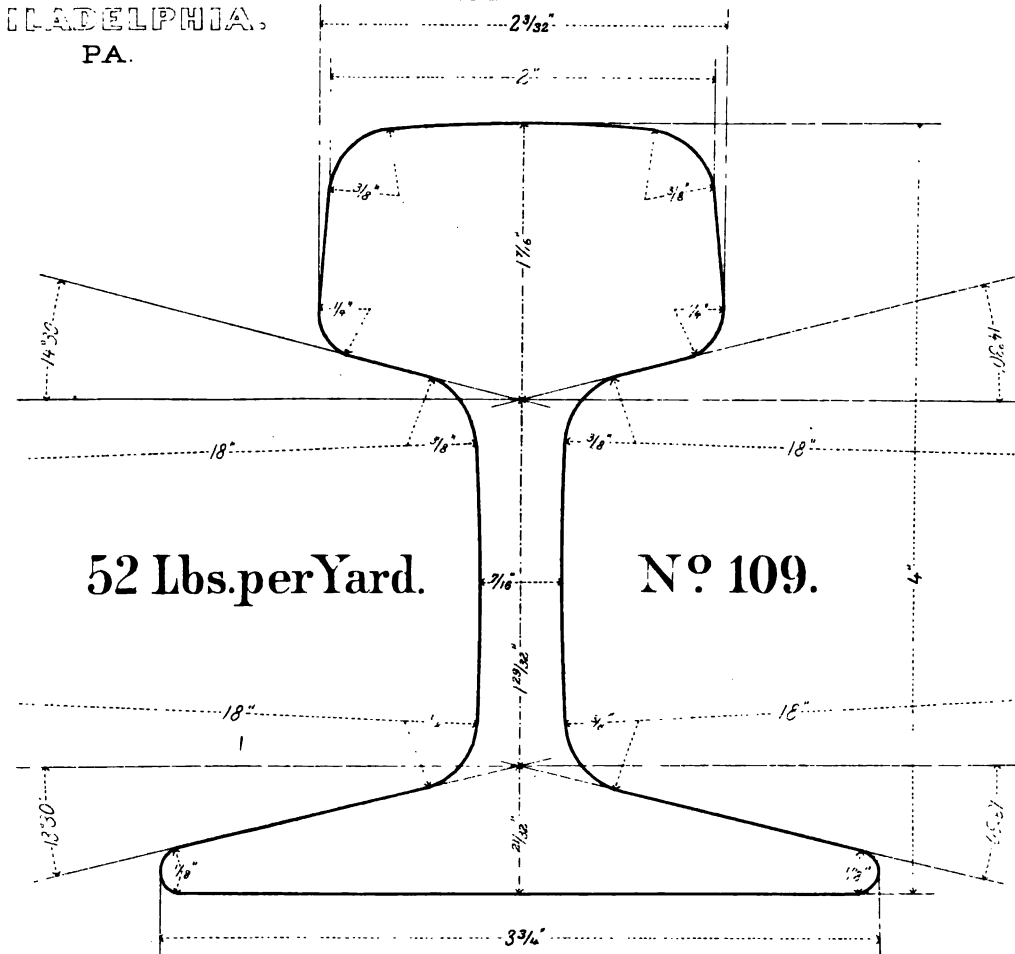
52 LBS. No. 109.

Brown, Howard & Co., 1883.

Michigan and Ohio R. R., 1883.

Western Maryland Ry. Co., 1884.

Pittsburgh and Lake Angeline I. Co., 1884.



81~~111~~ GROSS TONS TO THE MILE.

91~~111~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

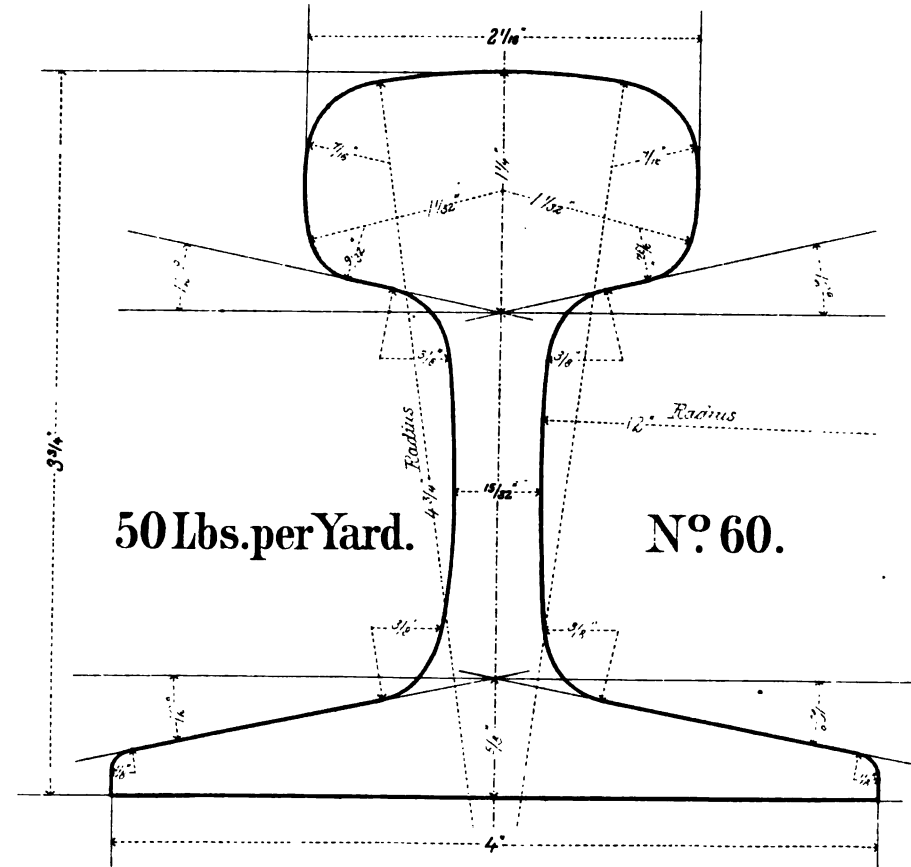
OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **50**
No. **60**

50 LBS. No. 60.

C. P. Huntington, 1881.
Pacific Improvement Co., 1882.
Central Pacific R. R., 1876.
Squankum and Freehold Marl Co., 1876.
Chesapeake and Ohio R. R., 1876.
New York Elevated Ry., 1876.
Connecticut and Passumpsic Rivers R. R., 1876.
Grand Rapids and Indiana R. R., 1875-80. See 56, No. 73.
Seaboard and Roanoke R. R., 1879-82-83-85.
Raleigh and Gaston R. R., 1879-83-85.
Eel River R. R., 1877.
Mineral Range R. R., 1879-81-82-83-84.
Maryland Union Coal Co., 1884.
Carolina Central R. R. Co., 1883-84.
Delaware, Maryland & Virginia R. R., 1883.
East Lexington and Big Sandy R. R., 1882.

STEEL.



50 Lbs. per Yard.

Nº 60.

78 1/4 GROSS TONS TO THE MILE.
88 NET TONS TO THE MILE.

1

2

3

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA,
PA.

STEEL.

Wt. **50**
No. **85**

50 LBS. No. 85.

St. Louis, Kansas and Arizona R. R., 1880.

Union Depot Co., 1880-81.

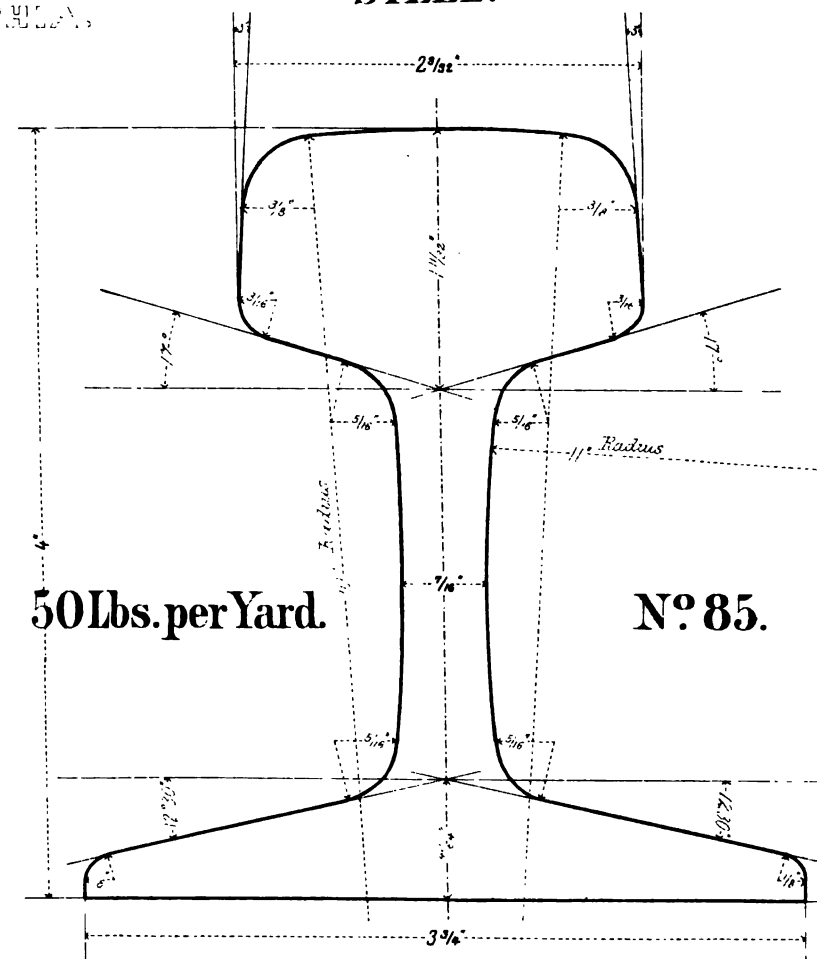
Grand Rapids, Newaygo and Lake Shore R. R., 1879.
Also 52.6, No. 70.

Pennsylvania R. R., 1882.

R. T. Wilson & Co., 1882.

Grand Rapids and Indiana R. R., 1882.

Bells Gap R. R. Co., 1882.



~~78~~ **78** GROSS TONS TO THE MILE.
88 NET TONS TO THE MILE.



CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

STEEL.

Wt. **50**
No. **100**

50 LBS. No. 100.

Grand Rapids and Indiana R. R., 1883.

Pennsylvania R. R., Branch Lines, 1883-84.

Cin., Van Wert and Mich. Common Carrier Co., 1883.

Toledo, Cincinnati and St. Louis, 1883.

Alexandria Coal Co., 1884.

Pontiac, Oxford and Port Austin R. R., 1884.

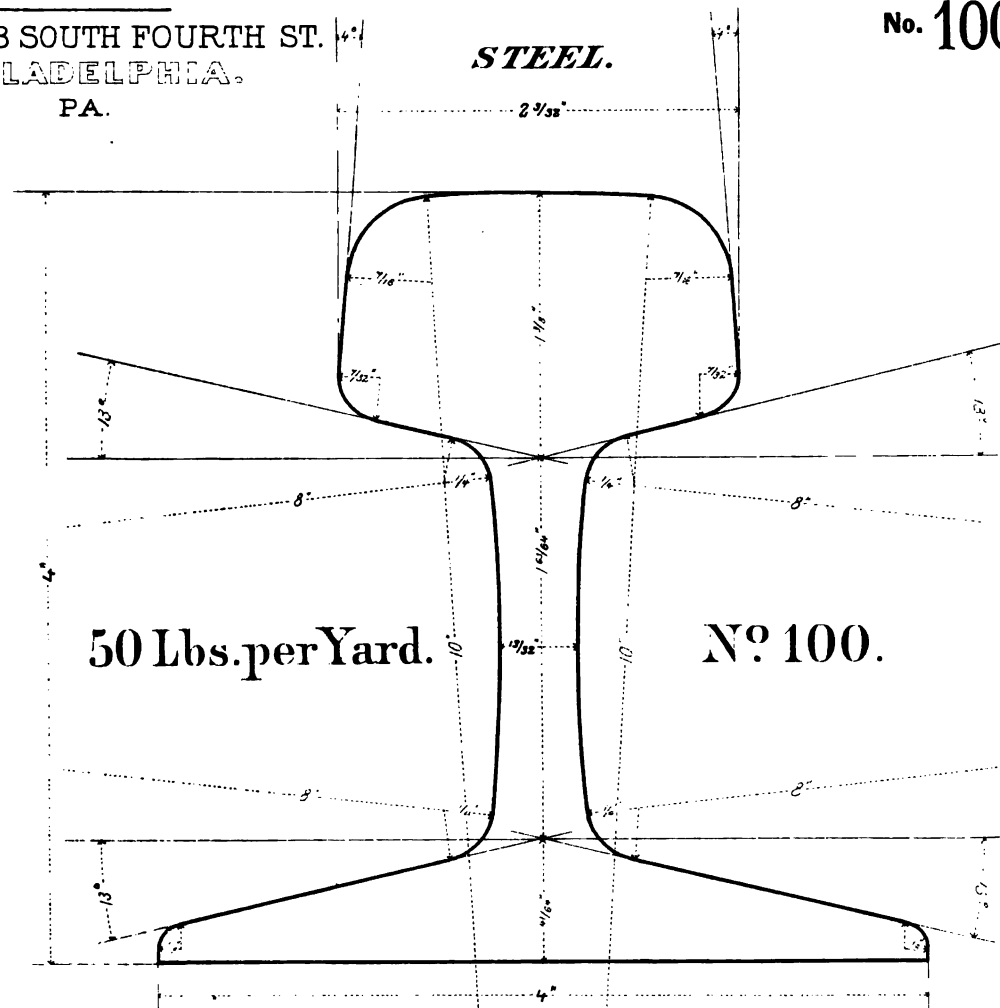
Kansas City Cable Ry., 1884.

Tuckerton R. R. Co., 1883-84.

Cincinnati, Van Wert and M. C. Con. Co., 1883.

Conglomerate Mining Co., 1883.

R. A. Alger and J. S. Newberry, 1882.



~~78~~ **78 1/4** GROSS TONS TO THE MILE.
88 NET TONS TO THE MILE.



1000

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **40**
No. **90**

40. LBS No. 90.

Monongahela and P. Creek Gas Coal Co., 1882.

Cincinnati Northern R. R. Co. 1881.

Peachbottom R. R. Co., 1881.

Calumet and Hecla Mining Co., 1882.

Baltimore and Delta Ry., 1881-82.

Rio Grande Extension Co., 1881. Also 30, No. 71.

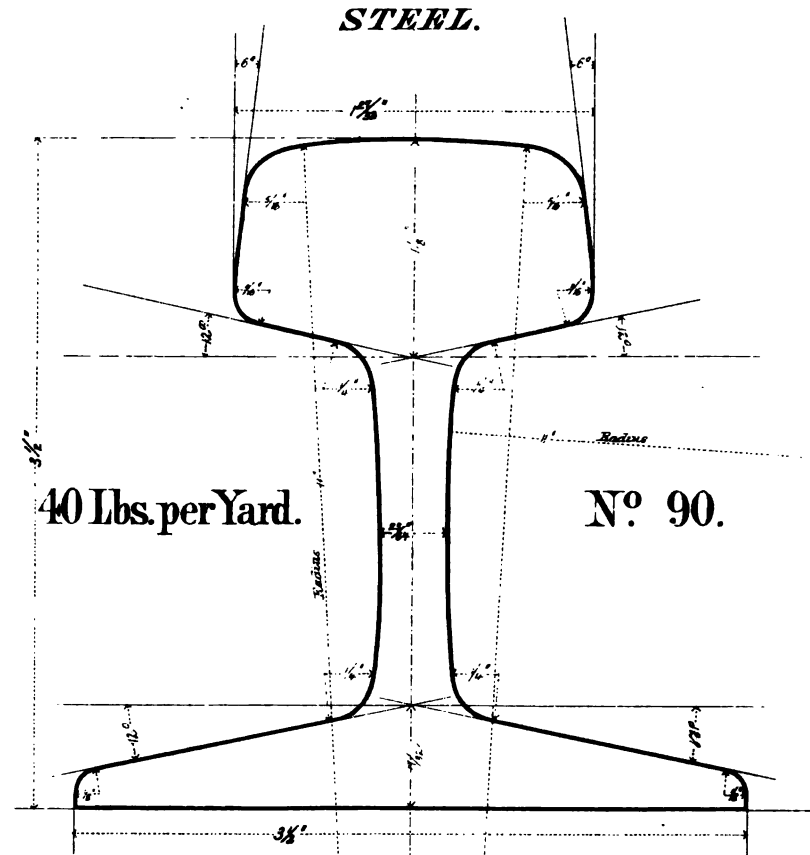
Maryland Union Coal Co., 1884.

Herkimer, Newport and Poland R. R., 1882-84.

Maryland Central R. R. Co., 1883-84.

Everett Iron Co., 1883.

Charleston M. and M. Co., 1882.



62,111 GROSS TONS TO THE MILE.

70,111 NET TONS TO THE MILE.

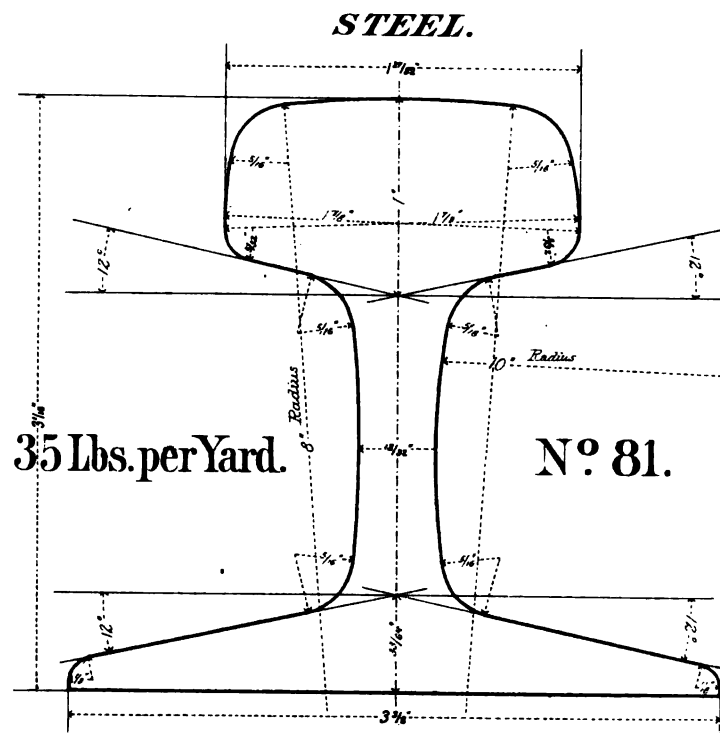
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **35**
No. **81**

35 LBS. No. 81.

New York, New England and West. Invest. Co., 1883.
Pensacola and Perdido R. R., 1883.
Worcester and Shrewsbury Ry., 1882—83.
Danville and New River R. R., 1883.
Nashville, Chattanooga and St. Louis Ry., 1883.
Arizona Copper Co., 1883.
Buffalo, N. Y. and P. R. R., 1883.
Texas and St. Louis Ry. Co., 1884.
Mineral R. R. and Mining Co., 1883—84.
Youngstown and Connotton Valley R. R., 1880.
Connotton Valley R. R., 1880.
Flint and Pere Marquette Ry., 1879. Also 66, No. 63.
Thos. R. Lyon, 1880—84.
Port Huron and N. W. R. R., 1884.
Calumet and Hecla Mining Co., 1882—84.
R. T. Wilson & Co., 1884.
Lykens Valley Coal Co., 1883—84.
Summit Branch R. R. Co., 1884.
Tionesta Valley R. R. Co., 1884.
Illinois Central R. R., 1884.
Kansas City and R. Street Ry., 1883.
Chicago and Western Dummy Co., 1883.
Chippewa Lumber and Boom Co., 1882.
Keystone Coal Co., 1882.
R. A. Alger and J. S. Newberry, 1882.
Fayette Coke and Furnace Co., 1882.
D. S. Cook, 1883.
C. D. Allen, 1882.
Horton, Crary & Co., 1882.
Alger, Smith & Co., 1882.
Lykens Valley R. R., 1883.



55 GROSS TONS TO THE MILE.
61 1/3 NET TONS TO THE MILE.



CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **30**
No. **58**

30 LBS. No. 38.

30 Lbs.per Yard.

Nº 58.

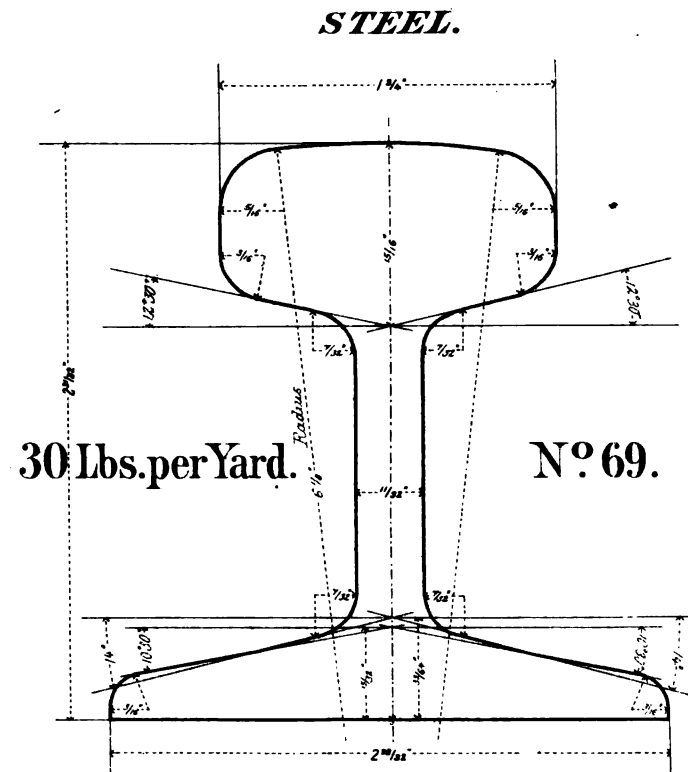
47²²⁰/₁₁₄₀ GROSS TONS TO THE MILE.
52¹⁰⁰⁰/₁₀₀₀ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

wt. **30**
No. **69**

30 LBS. No. 69.



47 ~~110~~ GROSS TONS TO THE MILE.
52 ~~110~~ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **30**
No. **71**

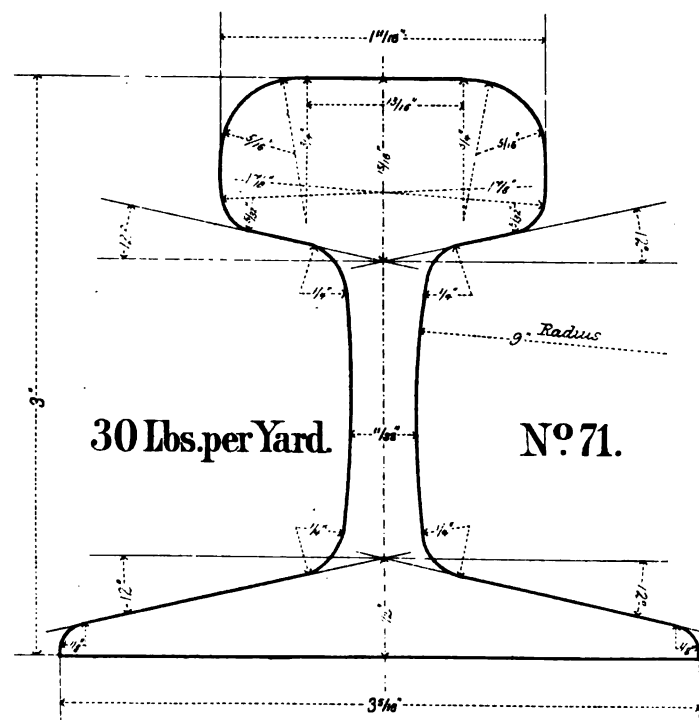
30 LBS. No. 71.

Cumberland and Penna. R. R., 1883.
Galveston City R. R. Co., 1883.
Houston Street Ry., 1884.
Greenlick N. G. Ry., 1884.
Fire Creek Coal and Coke Co., 1884.
Denver and Rio Grande Ry., 1878.
Parker and Karns City R. R., 1879.
G. L. & D. E. Wing, 1880—82.
W. S. Ladd, Agent, 1878.
Karns City and Butler R. R., 1878.
Consolidation Coal Co., 1885.
Brown, Howard & Co., 1884.
Salisbury Coal Co., 1884.
E. E. Jackson & Co., 1882—84.
Gay Mfg. Co., 1884.
Potomac Coal Co., 1883—84.
Argyle Coal Co., 1884.
Grand Haven Lumber Co., 1883.
Charlotte Furnace Co., 1883.
Juniata Mining Co., 1883.

Danville and New River R. R., 1883.
Fairchance Furnace Co., 1882.
Bridgeton and Saco R. R., 1882.
Yale & Towne Mfg. Co., 1882.
H. N. Lamb, 1882.
R. G. Peters, 1882.
R. E. Schmertz & Co., 1882.
Blodget & Byrne, 1882.
Morley Bros., 1882.
McClure & Co., 1882.
Palmer, Nichols & Co., 1882.
Frank Williams & Co., 1882.
C. D. Allen, 1882.
Fletcher, Pack & Co., 1882.
Bell, Lewis & Yates, 1882.
Alger, Smith & Co., 1882.
McClure Co., 1882.
Thos. W. Bell, 1882.
M. Erskine Miller, 1882.
D. C. George, 1881.

New England, Fairmount and W. G. C. Co., 1883.
Roscommon Lumber Co., 1882—83—84.
Wheeling and Elm Grove R. R., 1883—84.
Gratwick, Smith & Fryer Lumber Co., 1883—84.
Rio Grande Extension Co., 1881. Also 40, No. 90.
Atlantic and Danville R. R., 1883—84.
Clarksburg, W. and G. R. R., 1882—84.
West Virginia, Cent. and Pittsburgh R. R., 1883—84.
Norfolk, Virginia Beach Ry. and Iron Co., 1883.
Beaver Creek and C. River C. and C. Co., 1883.

STEEL.



47 1/2 GROSS TONS TO THE MILE.
52 1/2 NET TONS TO THE MILE.

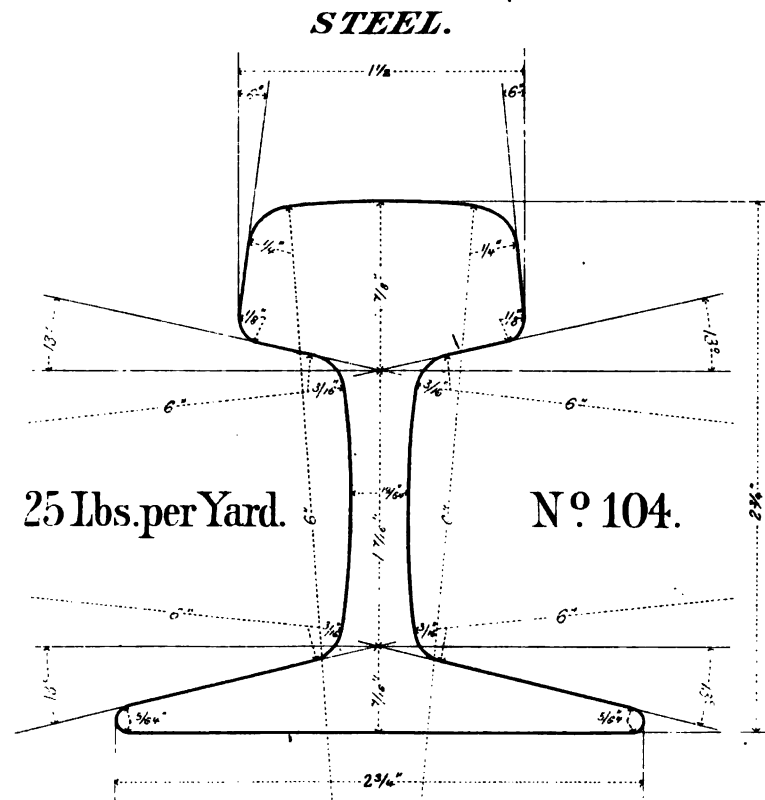
CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **25**
No. **104**

25 LBS. No. 104.

Fisher, Miller & Co., 1884.
Hoover, Hughes & Co., 1884.
Bliss & Marshall, 1884.
Wm. A. Harris, 1884.
Shields & Dorwin, 1884.
Thos. Collins, 1884.
John McGovern, Son & Co., 1884.
Brooklyn Street Ry., 1884.
Eden Park Street Ry. Co., 1884.
Greenleaf, Johnson & Son, 1884.
Jacksonville S. E. R. R. Co., 1884.
Mineral R. R. and Mining Co., 1883-84.
Hillside Coal and Iron Co., 1883-84.
Morley Bros., 1883.
Balto. Union Pass. Ry., 1885.
Cumberland and Penna. R. R., 1884.
Mill Springs, Current River and Barnesville Ry., 1884.
North Western Mining and Exchange Co., 1883-84.
Summit Branch R. R., 1883-84.
Lykens Valley Coal Co., 1884.
Hamilton Street Ry. Co., 1884.
Cumberland, Hydraulic Cement and Mfg. Co., 1884.
Maryland Union Coal Co., 1884.
State Lumber Co., 1884.
Fort Worth Street Ry. Co., 1884.
Lykens Valley R. R. Co., 1883.
Chippewa Lumber Co., 1883.
Youghiogeny R. R., 1883.
Burns & Noakes, 1882.
Wheeler & Dusenbury, 1882.
Yale & Towne Mfg. Co., 1882.
Jno. A. Wood & Son, 1882.
Henry Stephens & Co., 1882.
Hartley & Marshall, 1882.



~~39.440~~ GROSS TONS TO THE MILE.
44 NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. 20
No. 122

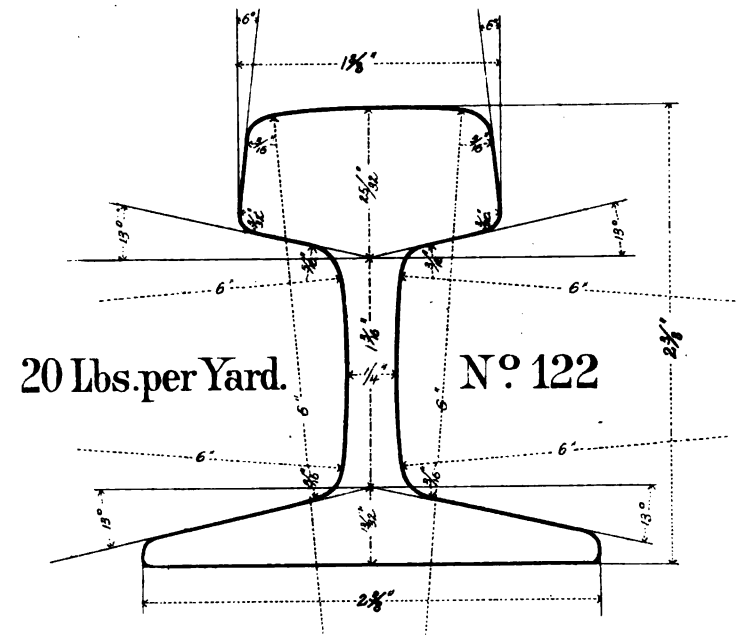
20 LBS. No. 122.

Juniata Valley Coal Co., 1885.

Campbell's Creek Coal Co., 1884.

Bliss & Marshall, 1884.

STEEL.



20 Lbs. per Yard.

N° 122

31 $\frac{111}{1000}$ GROSS TONS TO THE MILE.

35 $\frac{100}{1000}$ NET TONS TO THE MILE.

CAMBRIA IRON & STEEL WORKS, JOHNSTOWN, PENNA.

OFFICE 218 SOUTH FOURTH ST.
PHILADELPHIA.
PA.

Wt. **16**
No. **121**

16 LBS. No. 121.

Whitehead & Co., 1885.

Thompson, Ashburner & Co., 1885.

McFadden & Kelly, 1885.

P. McLaughlin, 1884.

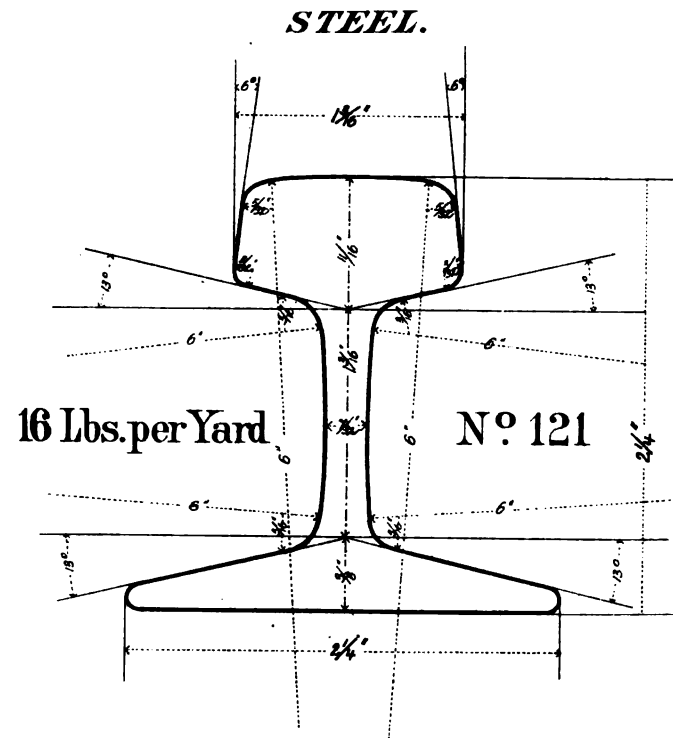
Daniel Cessna, 1884.

Thos. H. Selby & Co., 1884.

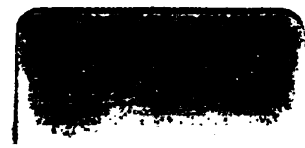
Beecher & Copeland, 1884.

Isabella Furnace Co., 1884.

W. H. Piper & Co., 1884.



25¹¹¹/₁₀₀ GROSS TONS TO THE MILE.
28¹¹¹/₁₀₀ NET TONS TO THE MILE.



CAMBRIA

Eng 638.86.3
Sections of steel and iron rails, m
Cabot Science 009584054



3 2044 091 884 189